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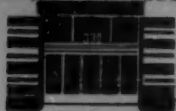


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By Precept—A Critical Appraisal of Medical Teaching

"... by precept, lecture and every other mode of instruction I will impart a knowledge of the art..." (from the Hippocratic oath).

E. H. WATSON

A GREAT DEAL of pressure is being put on medical schools today to accept more students and turn out more physicians. Additional facilities and increased budgets are the order of the day. Too little is heard about improving the quality of medical teaching by a program of selection and training.

My interest in this phase of medical education is stimulated by personal experience, and by discussions with young men who have wondered how medical teaching positions above the rank of instructor were obtained.

Competition for positions on medical school faculties is keen. This would seem to guarantee a plentiful supply of good teachers, but this unfortunately does not always follow. Dean A. C. Furstenberg of the University of Michigan Medical School has said, "No man should be advanced to the rank of assistant professor unless there is a good proba-

bility that he will merit further advancement as a medical teacher." If this rule were strictly followed, it would preclude the promotion of mediocre men whose principal claim to advancement is that they have been instructors for a number of years.

Departmental chairmen, deans and faculty committees charged with the investigation of candidates for advancement on medical faculties have heavy responsibilities. It is, of course, the primary responsibility of departmental chairmen to recommend for promotion to teaching positions only those men who undoubtedly have the qualifications and potentialities of good teachers. Promotion for any other reason demoralizes able young physicians aspiring to a medical teaching career. Advancement of teachers of little ability cannot be excused on the grounds that they are willing to work for low salaries. The facts are that these poor instructors occupy positions that good teachers should have, and by hanging on

Dr. Watson is associate professor of pediatrics and of child health, University of Michigan Schools of Medicine and Public Health.

may come to occupy important teaching and administrative posts.

The Teacher's Function

The chief function of the medical school faculty is that of preparing young men and women to become physicians. A few will become teachers, some will devote themselves to research, but the majority will be practitioners. The physician is more than a scientist, therefore his teacher must be able to impart certain things over and above knowledge of disease and its cure.

The present young physician is a paragon of scientific knowledge as compared to his medical forebears. There is a very real question, however, whether he is a correspondingly better physician. An alarmingly large segment of the population does not accord physicians the respect and admiration which practitioners of the art of healing traditionally have earned and enjoyed.

Is the modern physician less of a dedicated man than his forebears? If he regards himself primarily as a scientist, if his pride is chiefly that he is a member of a highly skilled profession, or if his first interest is money making, his indoctrination has been faulty. There likely has been something wrong with his teachers.

Every teacher of clinical medicine should have some experience in the actual practice of medicine outside the bolstering and protecting influence of a large institution. He should know intimately just what serious illness means to a human being and his family. Some faculty members have never had this experience. Some subtly infer that actual practice is all right, of course, for less gifted members of the profession. The facts are that some of the first group would

very likely come near to starving if the academic rug were jerked from under them. With respect to the second group, it is only the wisest and most gifted members of our profession who make the kind of physician we all had in mind when each of us decided to be a doctor.

The real teacher never scorns the independent practice of medicine as contrasted to the research or institutional career for the developing physician. If he is a wise teacher he will study his students and junior staff men with a view to helping each one find the phase of medicine in which he will be most productive and happy. The wise teacher thus will select a few for research and teaching.

Qualifications

There is an understandable desire on the part of medical schools to capture "big names" for faculty positions and department heads. If a man makes a 10-strike in any of the many medical fields, he is likely to be sought out by medical school faculties. Medical school budgets usually permit only one or two reasonably well paid positions per department. Thus we see that the man who may have achieved little in matters of teaching and administration being given the chairmanship of a clinical department because he has made a noteworthy contribution to the advancement of medicine, most often in the field of research. This is unfair to the members and students of the department and to the man himself, who, lured by higher salary and professional position, now tries to function in areas in which he has no special skill and no longer has time to do the things for which he is best fitted.

Often the man especially inclined to research is so bent on the ramifications of his particular problem that the repetition of the ABC's of clinical medicine, as required by the student, becomes a boring and irksome task. He fails to bring to his classes the inspirational freshness that distinguishes the real teacher. This quality is difficult to define but easy to detect. Students recognize it instantly and the alert attention given in the classrooms of teachers so endowed is proof of its existence. The best teachers love teaching, and it is axiomatic that we give our best to that which we love.

John McK. Mitchell, dean of Pennsylvania medical school, states it this way, "... research has come to be looked upon as a *sine qua non* for promotion in the higher brackets. This I believe to be one of the greatest weakness of our present promotion system. It becomes extremely difficult to gain promotion for a person who is primarily and almost solely a teacher. Nor, for that matter, is clinical acumen rated very high in this regard. . . . It seems to me that it is very difficult to say what it is that goes into the making of a great teacher. . . . I have been impressed by the variety of methods used by those whom I would rate as outstanding teachers. I have come to the conclusion that the great teacher develops his own method and that no effort should be made to insist that he operate according to any special pattern."

A topnotch teacher is more important to the education of the medical student than is the successful researcher or the brilliant clinician, and should be accorded full recognition. In the long run he will bring his full quota of glory and credit to his school.

What to Teach?

I suspect that most teachers would answer the question, "What are you teaching your students?" with a description of the subject matter covered in their course. Questioned further, the teacher would say that he is helping to train a physician. Asked about the kind of physician he is helping to mold, he may not have a ready answer, and if he does it is likely to be incomplete.

I think T. M. Greene¹ has given as good a general definition of a true physician as it is possible to give in a short statement. He wrote, "The ideal doctor is one who understands the human body as completely as possible in the light of all relevant sciences, who understands the human mind and its workings as well as possible in the light of all relevant modern psychology and psychiatry and who in addition . . . understands a human being in his full potential cultural and spiritual stature."

Most of our medical schools do fairly well by the student so far as scientific training is concerned. Further, the past decade has witnessed greatly increased emphasis on the importance of the human mind as a conditioning factor in health and disease. But I suspect many will agree that the third attribute of Dr. Greene's ideal doctor—that he understand man's cultural and spiritual potentialities and nature—is too often lacking.

Wisdom and understanding as such are not taught in our medical schools. These attributes, by no means peculiar to physicians, are acquired in various ways. Often they are learned the hard way by making errors ranging from mistakes that merely embarrass the blunderer to those that are serious and dangerous. Medicine

is a field wherein the acquiring of wisdom should hardly be left to chance.

The major part of the good physician's wisdom is learned from a wise teacher. It is not taught by lectures but rather by example, and is an accumulation of experiences and reactions to experiences strongly colored by his teachers. As Means² emphasizes, it is the natural tendency for the medical student in the clinical years to be intensely interested in organic disease. He has not yet broadened his interest to include the functional and psychogenic aspects of human behavior. In Means' words, "He still sees the patient as a collection of diseased organs rather than as a person in difficulty."

I should like to add to Dr. Greene's definition of the ideal doctor a fourth attribute. The young doctor should acquire in medical school a full realization of the responsibility and dignity of his profession and a pride in it which will never permit him to conduct himself so as to abuse it. As a profession we cannot be unmindful of the fact that there are many mature individuals outside of medical ranks keenly aware of our conduct and when we show the traits and unstable qualities of adolescents neither our M.D. nor an overdone mask of cordiality will command their respect. Physicians like all men must earn respect. What is more, individual doctors may lower the prestige of the entire profession. This is even more true of those who teach doctors.

Scientific developments and the teaching of them have so weighted the medical curriculum that it often seems to be forgotten that the physician is only part scientist. The great physicians of previous generations were rather inefficient scientists by

our standards, but they had a responsible maturity, an intellectual honesty, a humanistic approach to the practice of their profession which they passed on to their students. They gave the profession its prestige.

Laymen seem to sense more than the profession itself that many modern physicians have not acquired these inspirational qualities during their period of training. These attributes cannot be taught by the teacher who does not possess them himself. The cynical, wise-cracking, undignified teacher inevitably influences many of his students to assume the same attitude. This type of teacher is often popular with the young doctor who is not yet wise enough to understand the insidious influence on his own impressionable young mind. They are neither old enough nor wise enough to realize the value of the teacher who gives the best of himself, nor do they realize the price they pay in the poverty of their own growth for being "entertained." Some teachers, smugly unconscious of their own emotional immaturity, actually retard the maturing of those in their charge. Pope describes this type aptly as, "The bookful blockhead ignorantly read, with loads of learned lumber in his head."

Who Should Teach?

The real teacher of medicine must truly like people. If he does not he cannot possibly have, nor impart to his students, the attitude that sick people are fellow human beings in trouble. Patients sense quickly the difference between physicians in this respect. A suave bedside manner is not a substitute for a very real feeling of sympathy and empathy.

I think every teacher of doctors should read Barthelemy's address,³

"The Attitude of the Physician." Psychiatry can be of great help in the selection of both medical students and teachers who have the attitude, as presented by Bartemeier, which is so necessary to the best service. However, I do not believe even psychiatry can instill in all students the type of liking and "feeling for people" that is instinctive in some. Even the very young and inexperienced may have it. And it may be noticed most often in those who have traversed a rough road themselves. Colleges found it especially in the veterans who filled the campuses during the years after the last war.

Neither gregariousness, a patronizing manner, nor excessive cordiality are indications of sincere liking for human beings. It is this feeling for and patience with people which often marks the fundamental difference between the practicing doctor with his office full of disturbed ill people and the research man with his necessarily exact scientific approach to medical problems in his quiet laboratory. It is almost impossible for the intent researcher to keep in proper perspective the patient's needs as a sick person and the researcher's needs as he attempts to ferret out some obscure chemical and physiologic change. I have seen young men guided into the quiet laboratory who were so nicely attuned to the appeal of the human in distress that it seemed too bad not to use so fine a talent where it is so badly needed. And, of course, the reverse is often true.

It is not hard to give the student a glimpse of what this feeling for people means, providing the teacher is the sort a student can approach with his enthusiasm without fear of being squelched. A quick response to student enthusiasm instead of a bored "don't bother me with trivial things"

attitude is one of the most important assets of the teacher of clinical medicine.

Suppose a student or intern has just seen a rare case of a particular illness. He is as enthusiastic as his teacher was with his first "rare" case. He wants to share his feeling with someone, preferably a superior. His first thought is of the teacher who is approachable, who will be happy with him in his new-found ability. And although the teacher may have seen many like cases, he will enter into the young doctor's enthusiasm and use that moment to do the best of all clinical teaching—pointing out the rare case as a fellow human, suffering and in trouble, who needs all the sympathy, understanding and gentle attention that the young doctor himself would like in a similar circumstance. This is the sort of teaching that is exhausting and exhilarating at the same time, and it is the only kind worthy of the name. I have watched doctors and teachers of doctors who seemed almost afraid of the word "gentle," as though to practice the art of gentle behavior were unmanly. And I suspect many actually do not know how.

The Teacher and the Student

I feel certain there is no more impressionable student in the world than the medical student. If these students are asked why they decided on medicine as their life work, most will say that a highly respected practitioner, a close relative or the family physician, was their ideal. They enter medical school with this idealism largely untarnished. To the greatest degree possible, it should be preserved.

Unfortunately, two deplorable changes often are noted as the stu-

dent proceeds through his clinical courses. He loses much of his eagerness to study and learn, and he becomes overly self-confident and arrogant. We must conclude, I think, that the blame for these changes lies largely on the shoulders of those of us who teach in the clinical years.

Too many of us forget the eagerness and awe with which the student approaches clinical medicine. If we exhibit before him too few of the qualities of a real physician, to say nothing of failing to meet his enthusiasm with the art of a real teacher; if we expound fine principles of conduct while our actions belie our words, is it any wonder the student is at first startled, then confused, then disillusioned?

The real teacher combines with convincing knowledge of subject matter, gentleness, humility, understanding, a kindly tolerance for the student's unsure groping for knowledge, an ability to draw the student out and, finally, the patience and good judgment to help the student find the niche best suited to him. If the teacher lacks most of these qualities he should not be teaching, no matter how brilliant or talented he may be. The real teacher ignores the spotlight and is happy when his students forge ahead—even of himself.

The physician, if he is a good one, inevitably assumes an important and influential position in his community. His opportunities to influence his community's reactions to its moral and social responsibilities are often considerable. However, many fail to achieve the degree of maturity in cultural, social and related fields they have achieved in their profession. Medical schools have shied away almost entirely from attempting any kind of instruction which would whet the mental appetite of the budding

physician and lead to a degree of mature thinking along other lines.

There need not be courses added to the already crowded curriculum, but I have often thought that medical teachers might well furnish bulletin boards with clippings of current and cultural interest, hoping to start trains of thought and habits of reading which would be of a great deal of value to the individual student as he takes his place in a world of which medicine is only a part. Medical schools have so far assumed that the home, the church and premedical education would take care of this indoctrination, but we should remind ourselves that one ounce of such indoctrination by the most mature members of medical school faculties would probably influence the student more than pounds of platitudes poured at him when he was not ready to understand them.

There is little glamor in teaching—a good teacher may never be thanked or someone else may be given the credit for the good men he has trained—but that is of little concern so long as the product of his labor is good. The real teacher need not be a paragon of virtue, but he must be a mature adult and act like one if his product is to bear a mature mark.

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Contributions of Postgraduate Medicine to Undergraduate Medical Education

Before medical graduates can be judged on their ability to practice, we must ask this basic question: what is a good doctor?

THIS PAPER will attempt to appraise the fitness of medical graduates to practice the profession they have acquired. The medical graduate of today must be judged by his ability to contribute to the health and welfare of mankind, not by an impassioned discourse on the faculty or the physical facilities of the school that produced him.

Such a viewpoint asks many questions for which there are no ready answers: Is the graduate adequately prepared to practice medicine at the end of four years of medical school? If so, what are the scope and limitations of the practice? Are there serious gaps in the subject matter of the undergraduate medical curriculum which should be corrected in order to prepare the graduate more competently for active practice? Should extensive revision of our concepts of clinical teaching be undertaken? If so, what are they and why? These and many other questions inevitably bring the searcher to the most per-

ROSCOE L. PULLEN

tinent question of all: what is a good doctor?

Postgraduate medical education can assess shortcomings in the quality of medical graduates and make tangible contributions to the overall problem of the undergraduate medical curriculum. The accumulated experience of successful practitioners, local medical societies, hospital administrators and others engaged to serve the sick can be of inestimable value.

Many graduates state that they really began to learn medicine after they started their internship or entered active practice. This does not mean the quality and emphasis of undergraduate medical instruction necessarily was poorly directed; it means that the graduate suddenly finds himself making decisions independently and without appeal.

Individual practice fosters thinking in terms of medical science and such thinking is synonymous with the process of learning medicine, hence the origin of the concept that

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graduation from medical school is basically "commencement" insofar as the acquisition of medical knowledge is concerned. This concept is somewhat unfair to undergraduate medical instruction, but it does serve to direct attention to the philosophies, objectives and content of medical education, both postgraduate and undergraduate.

What Kind of Graduate?

A frequent question is what type of graduates the medical schools are interested in producing. Is the curriculum designed to give the medical student a broad basis for entering medical practice? Does the faculty influence the medical student unduly in scientific research by precept and example, with an implied underemphasis on clinical teaching? Do both postgraduate and undergraduate instruction lean toward the development of specialists as opposed to general practitioners? These questions are not new, and answers require defining what a good doctor is. The answer to this question must take into consideration how to prepare for the medical practice of tomorrow as well as today.

Medical practice is constantly changing and medical education, of necessity, must keep abreast of these changes in order to produce physicians who will meet the needs of society. The argument of general practice versus specialism versus research in the undergraduate medical curriculum is fruitless, for the nature of medical practice is dynamic and fluid. No one knows what a general practitioner can or cannot do. No one can define the nature of general practice, nor elucidate the subjects and emphasis which should be taught to the medical student as the best

possible preparation for general practice.

Similarly, the nature of a specialty is ill-defined and ever-changing. A decade ago the field of otorhinolaryngology, for example, was attractive and much sought after. Today the number of patients seeking consultation with the otorhinolaryngologist is dwindling, so much so that some thoughtful observers fear that the field soon may cease to be a major specialty. The challenge in otorhinolaryngology is to discover wider fields of practice. Such developments undoubtedly will be forthcoming, but such would not be the case if the otorhinolaryngologist of a decade ago had received training narrowed to the methods and knowledge of that day. Other specialties may likewise undergo similar changes. Some specialties active today may be nonexistent a decade or two from now, and new specialties undoubtedly will develop in future years. In view of these facts, it would be folly indeed to train the undergraduate medical student with any but the broadest outlook toward medical practice.

There are other subtle changes in medical practice. There have been many developments in the art and science of medicine, and there seems no foreseeable limit to future progress. And the nature of medical practice changes with each discovery.

Purposes of Medical Education

What, then, is the purpose of undergraduate medical education? Can the perspectives and experiences of postgraduate medical education elucidate some of the objectives of undergraduate medical education? Are these two endeavors so closely linked—one dealing with the production,

the other with the finished product—that distinctions become artificial and lacking in force?

Again we come back to the basic question: what is a good doctor? Though answers are abstract and usually tinged with individual concepts, it would seem that some portion of the conception may be derived from knowledge of how the physician applies his art and his science, as well as the relations of the physician to the society in which he lives.

The fundamental purpose of undergraduate medical education remains that of the institution and perpetuation of educational techniques and guidance that will produce a continuing supply of physicians capable of meeting, adjusting to and extending the changing concepts of medical practice.

In a sense, undergraduate medical education occupies a position comparable to liberal arts education—an educational offering which is not purely technical nor complete in itself but designed to equip the candidate to acquire and to extend his knowledge in any number of fields in which he may be interested. If postgraduate medical education will record the present and future trends of medical practice, as well as examine the abilities of graduating physicians to meet these trends, it will render useful and happy service to undergraduate medical education.

Training of Physicians

It is pertinent to summarize here a few of the observations recorded thus far. They are offered with a sincere desire to be helpful and represent the comments, thoughtful analyses and experiences of several hundred actively practicing physicians interviewed in the past several years.

1. Regard for human suffering and human life. A patient consults a physician whenever anything interferes with his comfort or his work. The physician's role is to relieve suffering, prolong life and provide comfort to both body and mind. The patient wants the physician to be genuinely interested in his case; he does not want to be dismissed with vague generalizations or to be classed as "case xyz," or to be included in a series. The successful physician must be solicitous of both the patient and his family.

During their clinical years, medical students must develop compassion for the sick and the afflicted, for the practice of medicine, in the strictest sense, consists of service to the sick. The development of this attitude lies in attention to all the little details of patient care: thoroughness in all professional attentions, sincerity, honesty, sympathy and, when requested or needed, adequate explanation of all procedures.

The necessity for imbuing each medical student with regard for human suffering and human life permeates the entire field of medical education. In clinical practice, one of the most important aspects of patient care is symptomatic and supportive therapy, yet few courses stress the principles of this large and frequently neglected field of therapeutics. On the contrary, the tendency exists to gloss over the management of many disorders with the statement that there is no effective treatment for the disease. What about care of the patient who has the disease?

2. Improper grounding in the minor ills. One of the immediate deficiencies in the undergraduate medical curriculum that every practitioner discovers upon beginning practice is the insufficient training in the com-

mon, minor ailments of office practice. In general, this defect arises from disproportionate emphasis on various topics in the clinical fields. Effective teaching demands careful selection of all material to be covered, yet every graduate can recall wryly some of the overemphasis that was placed on certain topics which were of major interest to the instructor. The feeling prevails that medical students have adequate knowledge of certain major but relatively uncommon disorders, but are terribly dismayed by the patient who presents an ordinary corn or dysmenorrhea or pityriasis rosea.

It would appear that all clinical departments should analyze their courses constantly from the following viewpoints:

A. Evaluation of the most common conditions which confront the practitioner and the granting of an adequate amount of time to their coverage.

B. Evaluation of what can be offered the patient diagnostically and therapeutically with regard to his disease.

C. Evaluation of the probable needs of the community and of the nation as a whole.

3. *Inadequate training in the care of the chronically ill.* With the two-fold pressures of an increasing population of chronically ill patients and the rising costs of medical care, the management of the chronically ill becomes one of the major problems of medical practice. And it should not be overlooked that the primary consideration in management of the chronically ill is to keep the patient as socially and economically useful as possible.

4. *Inadequate training in bedside diagnosis.* A major factor in the cost of medical care is intelligent, dis-

criminating selection of all laboratory procedures to be pursued on the individual patient. The practicing physician has serious need for mastery of the principles of bedside diagnosis: how to obtain a reliable medical history, perform a competent and thorough physical examination, analyze the data obtained, predict and direct the course of the illness, and request the laboratory procedures, roentgenologic studies and other consultations which will contribute to the care of the patient.^{1, 2} The place of bedside diagnosis in the undergraduate medical curriculum should be paramount and emphasized by all departments throughout all the clinical years. Moreover, there is a serious need for courses on the interpretation of symptoms, or for emphasis on the interpretation of symptoms in all clinical teaching.

5. *Inadequate training in therapeutics.* The necessity for understanding the psychologic and pharmacologic principles of symptomatic and supportive care of the patient has been stressed and is repeated here for emphasis.

Other aspects of medical therapy should be emphasized: techniques of home nursing, ability to instruct patients or their families in self-medication, principles of physical medicine and the like. Because most undergraduate teaching takes place in a teaching hospital where much therapy is carried out by the nursing staff, technicians or other personnel, the medical student fails frequently to acquire proficiency or knowledge of the minor but nevertheless important procedures of bedside care.

Another aspect of therapeutics worthy of emphasis is knowledge of the untoward reactions of drugs used widely in various therapeutic programs. Never before has the physi-

cian had access to as many valuable therapeutic preparations as are available today, but the potency of these preparations has posed a growing problem in the number and seriousness of the untoward reactions occurring in drug therapy.

The medical student should realize early in his clinical training that the major portion of his practice will be ambulatory patients treated in the office, the clinic or the home. Moreover, the student should become familiar with the efficacy and rationale, the costs and the interruptions of social and economic activities provoked by the various therapeutic programs. Even such topics as the use and abuse of bed rest as a therapeutic measure should be explored.

Finally, it must be conceded that a patient expects the physician to do something about whatever disorder prompted him to seek medical care, and that nothing is more deleterious to the reputation of the practicing physician than to dismiss the patient with the statement that nothing can be done. Something can be done, even if it is only an insight into the probable developments of the particular disorder, for prognosis of disease is essentially a part of medical therapy and certainly is one of the major contributions of medical practice.

6. *Insufficient training in some fields immediately applicable to medical practice.* This varies greatly, depending upon the nature of the individual practice under consideration. For example, the 1950 report³ of the committee of the British Medical Association appointed to study the nature of general practice emphasized, among other shortcomings in the preparation for general practice, deficient training in diseases of the skin, the eye, and minor surgical

procedures such as treatment of sprains and doubtful fractures.

A survey⁴ of recent Tulane graduates disclosed that 75 per cent of the total group reporting favored more undergraduate instruction in anesthesiology, 47 per cent desired more operating room training, 62 per cent requested more instruction in diagnostic roentgenology, 51 per cent stated the need for greater knowledge of dermatology, 42 per cent more psychiatry, and 58 per cent more neurology. It is obvious that the type and locale of the practice will influence the particular needs of the individual physician.

7. *Lack of comprehension of social, economic, governmental and other factors influencing the nature of medical practice.* A specific listing of these factors is beyond the scope of this discussion and have been summarized elsewhere.⁵ It is sufficient to say that the importance of these factors in the teaching and practice of medicine is growing tremendously and must be accounted in the undergraduate as well as the postgraduate medical teaching of today.

It has been estimated, for example, that in 1952 more than half, or 86 million Americans were eligible for professional services or cash benefits from various and diverse programs of medical care. Knowledge of the operation of these programs is imperative for the private practice of medicine, and instruction along these lines should be pursued in both postgraduate and undergraduate medical teaching.^{6, 7}

8. *Use and abuse of the modern community hospital.* During the past 50 years, the modern community hospital has become firmly entrenched in the framework of medical care,⁸ and comprehension of the various facets of hospital operation should

be known to all physicians. The availability of hospital beds, the competency of ancillary services such as the laboratory, radiologic and other facilities, adequacy of the nursing staff and many other factors in hospital operation markedly influence the nature of private practice of medicine.

It is unfair and not in accord with the facts to consider the general practitioner of today as practicing predominately in isolated, rural communities without the advantages of the services of a modern community hospital.^{9, 10} As a matter of fact, the general practitioner of today utilizes the various services offered by the modern hospital to the maximum and, in fact, centers a considerable portion of his medical practice around these facilities.

Knowledge of the socio-economic support of the modern community hospital likewise is indicated for all physicians. Too few understand the hospital's role in the community, the reasons for the high costs of hospitalization, the factors limiting growth and development of hospital facilities, the shortages of nurses and other skilled personnel, the fact that American hospitals fall within the 10 largest industries of the United States, the educational obligations fulfilled by community hospitals, the use of prepayment insurance and other hospitalization programs, and many other considerations of immediate practical importance to medical care and teaching.

9. *Other shortcomings.* These are so varied as to defy all attempts at generalization. Furthermore, many of the shortcomings listed by certain medical school graduates are personal and should be treated as such. The following items, however, have been emphasized by some physicians and

should be included for the sake of completeness:

—Inabilities to express the causes and prevention of disease to lay patients in terms that are readily comprehensible.

—Misunderstanding or lack of understanding of medical ethics, which is especially important today in the matters of patient referral between general practitioners and specialists.

—Insufficient training in maintaining vital statistics by the various governmental agencies; for example, what constitutes a coroner's case, how quarantine of a patient with a communicable disease is accomplished, how long various communicable diseases should be isolated to conform to community laws, and the like.

—Inadequate comprehension of public health and how the local public health agencies may contribute to the private practice of the individual physician.

—How to set up an office, arrange the doctor's bag and organize one's time to conform to the demands placed on the physician.

—Knowledge of various postgraduate medical opportunities.

Many practicing physicians feel that these shortcomings for medical practice should have been covered in the training years, either in undergraduate courses or during the internship or residency.

Conclusions

It should be emphasized again that the purpose of this discussion has been to center attention on certain matters of immediate importance to medical practice which are worthy of consideration in the undergraduate medical curriculum.

Recommendations of radical changes in the undergraduate medical cur-

riculum are not intended. This paper is meant to indicate the need for greater emphasis on certain topics throughout all undergraduate medical teaching. It is believed that knowledge of medical practice as it exists today is imperative to the production of physicians who will serve the best interests of society as well as the medical profession in general.

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The Function of Education

The highest function of education is to make human experience contemporary; that is, to make it available for use in the life of a man or a nation. Yet a great body of scholarship remains antiquarian, and many scholars withdraw into a grammarian's funk hole, because this is safer than to deal with the great issues of the age. As a result society is the poorer for want of wisdom and the understanding that can only come from scholarship. . . . A great society never declines but the signs are first plain in either the indifference or the hostility of its intellectuals. —Cornelius W. de Kiewiet in "Education for Survival," *The Scientific Monthly*, February 1953.

Psychiatry in Medical Education

Teaching hours in psychiatry added to the undergraduate medical school curriculum would give students essential basic knowledge.

GEORGE N. THOMPSON

IN THE PAST DECADE the increasing importance of psychiatry in medical education has paralleled the increased application of psychiatry in medical practice. As a consequence, there has developed a need for improved psychiatric teaching programs in medical schools, as well as a demand for expanded curricula.

This need has appeared from both within and without the medical school, and there has developed considerable interest among community agencies that wish medical schools to play a greater part in the training of psychiatrists in their graduate divisions as well as to provide medical facilities for training psychiatric social workers and clinical psychologists.

Aside from these needs for postgraduate training facilities, an important problem has arisen within the medical school itself with regard to the total teaching hours allotted to psychiatry. With a curriculum already well filled with subjects indispensable to medical education,

how is the department of psychiatry to expand its teaching program without encroaching on the teaching hours of other departments?

Along with this problem, there is found competition for teaching hours between the expanding psychiatry department and the expansion and development in other branches of medicine such as the new techniques in physical medicine and the application of biophysics.

Expansion of Program

In our expansion of psychiatric teaching programs, we have been accused of being too aggressive. At times our professional colleagues have eyed us with distrust and suspicion. They have disliked the trends toward revolutionary growth we have presented, and they have suggested that we walk before we run, that we proceed by evolutionary growth as has the rest of medicine. They have, in fact, insisted upon it.

Psychiatry now is beginning to heed this advice and to make use of cellular pathology with its background of 200 years. Our colleagues, in turn, are accepting psychogenesis

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when it is established and are permitting us to teach it. In this way psychiatry is assuming its proper place in medical education, through a dignified growth that is acceptable to the academic body of the university.

Curriculum Division

In some cases curriculum committees meet with considerable opposition from other departments when they attempt to broaden the psychiatric training program or increase the total hours allotted to psychiatry. And some medical educators, particularly those medical specialists whose areas of interest overlap to some degree with psychiatry, continue to look upon the specialty of psychiatry with some disfavor.

In the past, psychiatry has been an upper division specialty in most medical schools, taught either in the senior year alone, or in the senior year with some work in the junior year. Little or no effort was made to introduce the subject as such in the lower division years. Furthermore, few schools considered it necessary to require even an elementary course in psychology as a prerequisite to medical school admission. The pre-medical prerequisite, on the other hand, always has been replete with the biological and physical sciences.

The problem of encroachment on the teaching hours of other departments as the psychiatric curriculum is expanded is almost insoluble. In most medical schools the daily curriculum is filled completely; an occasional hour can be obtained here and there, but little opportunity is provided for thoroughgoing revision of the program or the inclusion of an intensive psychiatric program through the four-year course.

It is not reasonable to conclude, as

some educators have, that because psychiatric problems constitute 50 to 60 per cent of medical practice, that this much of the school curriculum should be devoted to psychiatry. Psychiatrists draw as much upon the basic sciences for groundwork as do surgeons or internists. Time spent in teaching physiology is not lost to psychiatry. Certainly we can believe that a portion of the time the student spends in any basic science is time devoted to the foundations of psychiatry. The study of glutamic acid in the physiological chemistry laboratory, for example, has some bearing on the later practice of psychiatry.

Various recommendations have been made concerning the total number of hours in the school curriculum that should be devoted to psychiatry. A study of 69 medical schools in the United States and Canada by the Group for the Advancement of Psychiatry (Report No. 3, March 1948; Report on Medical Education), shows the average teaching hours in these schools to be 152. The writer agrees this is inadequate and that the desirable total should be between 300 and 400 hours.

How can this goal be accomplished if the curriculum committee advises that all hours of the day are taken?

Allotment of Hours

Ten years ago the teaching program at one school of medicine consisted of one course in clinical psychiatry given in the senior year, a total of 48 hours in psychiatry. There were no other teaching hours available when it was wished to expand the curriculum. A survey of the program revealed that a large amount of time was devoted to the internal medicine clinic of the hospital out-

patient department. Students were spending half-time of an entire semester of the senior year in this department, examining and treating patients.

The first step followed upon the realization that a large amount of clinical material in this department was psychiatric and that at least some of it profitably could be turned over to psychiatric teaching. The response was favorable immediately, and the department of psychiatry had 32 hours of psychiatric teaching, utilizing patient material, added at once.

The success of this clinic uprooted most of the resistance that was present among some clinical professors of medicine, and there developed rapidly a request from the department of medicine for psychiatric teaching of a similar type on the hospital medical wards. This was started in connection with the neuromedical service, and another 16 hours were added to the curriculum. These hours were obtained by relieving the department of medicine of some of its psychiatric problems, not by taking away any of its teaching hours.

The most difficult hours to obtain were those in the preclinical years. Nowhere could the committee find time that could be taken from the other busy preclinical sciences. Then a study hour was found in the second

year that could be devoted to the important course in "Technique of Psychiatric Examination" that was planned to parallel the course in physical diagnosis. This gave the department 16 important hours of basic psychiatry, again without encroachment upon another department although with some reduction in students' day study time.

It was even more difficult to establish time for the basic course in "Medical Psychology and Growth and Development of the Personality" that was planned for the first year. The hours devoted to anatomy, biochemistry, physiology, histology and other basic sciences could not be decreased. As a compromise, the course was added as an hour at the beginning of one day per week in the first semester of the second year, although it still was considered more desirable to give the course in the first year.

At a later time, 16 hours of psychopathology were added in the junior year. Thus, in a few years the psychiatric curriculum of this school was expanded from 32 to 352 hours.

Present Curriculum

The present curriculum follows in general the pattern recommended by the American Psychiatric Association. It follows in outline below:

PSYCHIATRIC TEACHING CURRICULUM

Second year, first semester: Medical Psychology and Growth and Development of the Personality.....	16 hours
Second year, second semester: Technique of Psychiatric Examination.....	16 hours
Third year: Didactic Clinical Psychiatry.....	16 hours
Third year: Patient Interviews.....	32 hours
Third year: Ward Service.....	16 hours
Third year: Psychopathology.....	16 hours
Fourth year: Clinical Psychiatry: case presentations and ward service, four hours daily, 12 weeks.....	240 hours
Total	352 hours

The content of these courses is as follows:

Medical Psychology and Growth and Development of the Personality

This course may be described as psychology in relation to the practice of psychiatry, and to the nervous system in particular. In addition to lecturers from the faculty in neuropsychiatry, guest lecturers are utilized from the department of psychology of the university and from the department of social work. The course is primarily one of orientation and general definition. It stresses the relationships between psychiatry and psychology on the one hand, and psychiatry and physiology on the other. The titles of the lectures and demonstrations are as follows:

1. The relationship between psychology and psychiatry.
2. Orientation and definition.
3. Intelligence in general.
4. Anthropological data.
5. Functions of the psychologist in the psychiatric clinic.
6. The relationship between psychology and psychobiology.
7. Growth and development of the personality.
8. The uses of psychologic tests in clinical psychiatry.
9. Midterm examination, 30 minutes; lecture and demonstration of psychologic tests, including group projective techniques, 30 minutes.
10. "Schools" of psychologic and psychiatric thought.
11. Functions of the psychiatric social worker in the psychiatric clinic.
12. Multiple personality (lecture and motion picture).
13. Normal life history.
14. Abnormal psychology and psychiatry.
15. Introduction to psychopathology: some mental defense mechanisms.
16. Pathological personality types.

Technique of Psychiatric Examination

The course, "Technique of Psychiatric Examination," is one of the most important given in the department. It is a continuation of the preceding course, "Medical Psychology," and is designed to instruct students in mental examination at the same time that they are having their course in physical examination and diagnosis.

The value of this course has been apparent in the tremendously improved abilities of the students in making psychiatric examinations when they reach the junior and

senior years and begin to work in clinical psychiatry. Prior to the introduction of this course in the curriculum, the students floundered in a confused manner when they began interviewing patients. Now they proceed with assurance.

This course consists of a series of 16 lectures and demonstrations and is divided into five principal parts which are:

1. Functions of the normal mind.
2. Symptoms of mental disorder.
3. The technique of psychiatric examination, including history, analysis, and mental examination proper.
4. General classification of mental disorders.
5. General causes and the nature of mental disorders.

Didactic Clinical Psychiatry

The first course in clinical psychiatry, given in the first semester of the junior year, comprises a series of 16 lectures in which the following material is covered. This course is didactic and is designed to present clearcut clinical syndromes which the student can use as a foundation and framework for his studies of patients.

—Conation:

1. Anatomical and physiological basis of conation.

—Consciousness—Awareness—Attention:

1. Disorders of awareness and of attention.
 - a. Fixation.
 - b. Exclusion.

—The Instincts.

—The Emotions:

1. Definition and exposition.

—The Will:

1. Definition and exposition.

—Personality.

—Perception—Recognition—Recall.

—Intelligence—Judgment—Wisdom.

—Cerebral Function with Reduced Awareness.

—Some Defense Mechanisms of the Mind.

—Psychoneuroses.

—Addiction and Habituation.

—Psychopathic Personality.

—Schizophrenia.

—Manic-Depressive Psychosis.

—Involuntal Disorders.

—Paranoia.

—Syphilitic Psychoses.

—Migraine and "Idiopathic" Epilepsy.

—Mental Disturbances Due to Cerebral Neoplasm.

—Mental Symptoms Due to General Somatic Diseases.

—Congenital Mental Disturbances.

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- Gerontologic Psychiatry.
- Psychosomatic Medicine.

Patient Interviews

During the second half of the third year, 32 hours are devoted to patient interviews, conducted under guidance and supervision. This work is carried out in the outpatient department, and the patient material consists principally of those suffering with psychoneuroses, psychosomatic disorders and borderline psychotic states.

Ward Service

During the junior year, 16 hours are devoted to ward rounds on the psychosomatic service. The students work up cases and present them to the attending staff in psychiatry and internal medicine.

Psychopathology

The third year affords the opportunity to introduce the subject of psychopathology and to present a series of lectures in which the psychopathology found in various clinical syndromes is presented. The lectures included in this course consist of the following:

1. Psychoneuroses — General Considerations.
2. Psychoneuroses—Psychoanalytic Point of View; Mechanisms.
3. Psychoneuroses—Clinical Syndromes.
4. General Considerations in Psychopathology.
5. Psychopathic Personality—General Considerations and Symptoms.
6. Psychopathic Personality—Differentiation from Psychoneuroses.
7. Mental Defense Mechanisms.
8. Differentiation of Psychoneuroses from Psychosis—Criteria.
9. Mental Mechanisms in Schizophrenia.
 - A. Psychoanalytic levels.
 - B. Acute homosexual panic.
10. Schizophrenia Frustration Syndrome.
11. Mental Mechanisms in Cyclothymic Disorders.
12. Mental Mechanisms in Involuntional Disorders.
13. The Organic Paranoid Syndrome.

14. Mental Mechanisms in Paranoia.
15. Alcoholism—Its Psychopathology.
16. The Psychopathology of Childhood.

Clinical Psychiatry

Clinical psychiatry in the fourth year is devoted primarily to cases worked up by the students and used as the basis for general discussion. Stress is placed upon the subjects: "Nature and Growth of Personality," "Deviations from Normal Personality," "The Psychoneuroses," "Psychopathic Personality," "The Functional Psychoses" and "The Organic Psychoses." Special lectures and demonstrations are given on "Mental Mechanisms" and "Forensic Psychiatry," and considerable time is spent with the instructor in clinical psychology in demonstrations of psychometric testing. Students are given and are taught the fundamentals of intelligence tests and projective and other techniques.

Conclusion

It is our belief that this well-rounded program affords the student excellent opportunity to acquire basic knowledge in psychiatry. It possibly offers as much or even a little more than the undergraduate medical student can absorb in connection with the weight of the rest of his heavy medical program. It stresses psychiatry throughout medical school, bringing it into clinic and hospital teaching, and tending to remove the artificial barrier that has grown up between psychiatry and the rest of clinical medicine.

It is believed that this program is a further step toward the goal that we seek of more closely integrating psychiatry with other departments of the medical school.

Otolaryngology Looks to the Future

An adequate program of undergraduate instruction in otolaryngology can help prepare the student to be a good general practitioner.

GORDON D. HOOPLE

ONE OF THE great advances in medicine in the last quarter of a century is the advent of the antibiotics. They have had their effect on many branches of medicine, but to none has the change been as drastic and dramatic as in otolaryngology. A few examples can be cited to support this statement. There were many cases of purulent otitis media, sinusitis and mastoiditis before the advent of the antibiotics. Most of these cases got well, but only with the aid of a considerable amount of surgery.

During the same period otitic meningitis, if not prevalent, was often a dreaded visitor. Almost none of the patients so afflicted survived. The number of authentic cases recorded in the literature which did recover is shockingly small. Now recovery is expected to follow when this serious complication appears.

With the decrease in otolaryngologic infections, previously neglected or unsuspected conditions have come

to the fore. Allergy is a word which was almost unknown 25 years ago. Today it is well recognized as an etiological component of many otolaryngologic difficulties.

With improvement in electronic equipment has come new interest in the problems of hearing inasmuch as this advance has enabled better detection and diagnosis of hearing losses. One impetus in this field has been the perfection of the fenestration operation for those afflicted with otosclerosis. This, in itself, has provided a new approach, new techniques and a clearer conception of the possibilities of temporal bone surgery.

There has been an increasing number of malignant conditions diagnosed. This has brought all sorts of laryngeal surgery into the picture and laryngectomies, once a rare procedure, now are relatively common. Other examples could be cited.

There are those who note this change of interest from infectious conditions and their concomitant surgery to these new fields of endeavor and say that otolaryngology is a dying

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specialty. It is far from such. It is just coming into its own and assuming the stature that it should rightly possess.

Recognizing these changes and what they imply in the teaching of ear, nose and throat diseases, teachers in otolaryngology have met several times in recent years to appraise the effectiveness of the teaching program in otolaryngology in the medical schools in this country. Among these meetings were those of the teachers' section of the American Academy of Ophthalmology and Otolaryngology, the largest specialty society in the country. Self-appraisal of the teaching of various medical specialties is not new as may be witnessed by two articles—one in the field of neurology and the other in the field of chest diseases—published in the May 1951 issue of the *Journal of Medical Education*.

Survey of Teaching

A survey has been made of the teaching of undergraduate otolaryngology in the medical schools of the country. This presentation will not be filled with statistics. It is sufficient to state that all teaching time of undergraduate otolaryngology in the medical schools of North America varies all the way from eight to 136 hours of instruction. Obviously something is wrong in such a situation.

It is certain in this age of specialization that each specialty thinks of its own as the most important, and there must be continual attention in the curriculum committees of the various medical schools to keep in proper perspective the time allotted to the teaching of each of the various specialties. Otolaryngology does not desire to add to these pressures simply because it wishes more time.

After this wide discrepancy in teaching hours was discovered, it was decided that some sampling of the experience of men in general practice should be obtained to ascertain whether eight or 136 hours would suffice. Three surveys have been conducted, two in the midwest and one in central New York.

A study in Iowa revealed the rather startling fact that general practitioners in that area testify that 25 per cent of their practice is made up of otolaryngologic conditions or their complications. A similar survey in Minnesota showed that these general practitioners feel that 24 per cent of their practice is devoted to otolaryngologic conditions. A smaller survey in central New York showed a like figure.

Reappraisal

If these surveys are typical countrywise, it would seem that reappraisal of the undergraduate teaching of otolaryngology is justified and almost imperative. With these facts in mind, the teachers' section of the American Academy of Ophthalmology and Otolaryngology recommends that undergraduate otolaryngology be so directed that the average graduate is equipped to examine properly the ears, nose and throat of each patient who consults him, and that this examination should be so well done that pathological conditions, if present, can be recognized. It is not contemplated that every pathological condition would be diagnosed, but it should be seen and its presence noted, and a referral made if treatment is indicated.

That the haphazard way in which undergraduate otolaryngology has been taught has not resulted in this type of ability on the part of the general practitioner is demonstrated by

the fact that students show a woeful lack of ability to examine the ears, nose and throat properly in national board examinations. It has been noted by otolaryngologic examiners that some students have attempted to look into the nose with an otoscope and several have shown no concept of how an ear should be examined. This is an indictment of the teachers in otolaryngology, but is it solely that? The medical school curriculum which allows only eight hours of lectures for the teaching of otolaryngology cannot escape the blame for graduating students who are not equipped to examine properly those who will comprise 25 per cent of their practice.

Minimum Standards

With this in mind, the teachers of the section feel there should be some minimum standards set for the teaching of otolaryngology. These should not be excessive nor should they be granted at the expense of other more important teaching programs. On the other hand, it is inconceivable to this group how effective teaching can be done without acceptance of the following minimum standards:

FIRST, the department of otolaryngology should be autonomous. It should not be a subdivision of the department of surgery. It has been discovered through investigation of conditions in several medical schools that when otolaryngology is under the department of surgery, there usually is less effective teaching than in comparable schools where the department is autonomous. It should be recognized that while otolaryngology always has been classed as a surgical specialty, it is not entirely surgical and it encompasses many medical conditions. The whole field of allergy in ear, nose and throat, and much of

the field of hearing, is medical rather than surgical otolaryngology.

SECOND, there should be a minimum of 40 hours of teaching in this field. It is felt by the teachers' section of the academy that this should be confined largely to outpatient teaching where clinical experience can be dovetailed with book learning. This 40 hours of teaching should be done in the junior year. A requirement of clinical clerks is that they be able to do good clinical examinations. If otolaryngology is not taught in the junior year, sloppy work in this area will be done.

In some schools an introduction to otolaryngology is given in the sophomore year and the teaching of the examination of the patient is correlated with the general teaching of physical diagnosis. This is advised as another minimum requirement.

Advisable though not a minimum requirement in the opinion of the teachers' section is cooperation between the department of anatomy and the department of otolaryngology in teaching the anatomy of the parts. Excellent anatomical material is brutally sacrificed in many departments of anatomy. If there is good cooperation, excellent specimens can be prepared and students, if especially interested, can be taught careful dissection rather than mutilation.

Finally, it is suggested that electives in otolaryngology be permitted in the senior year.

Graduate Teaching

This presentation is concerned chiefly with undergraduate teaching of otolaryngology. A word should be added, however, about graduate teaching, or resident training. The changing character of otolaryngology has its effect here.

Otolaryngology Looks to the Future

In these days of specialization, it is difficult to know where one specialty ends and another begins. Future residents in otolaryngology are going to be required by the American Board of Otolaryngology to be well trained in surgery of the ears, nose, throat and neck. It is recommended that in all the medical schools of the country, an improved cooperative program between the department of otolaryngology and the department of surgery, the thoracic surgeon and the plastic surgeon be brought into effect. Not all malignant conditions of the neck belong to the otolaryngologist, nor by the same token do they belong entirely to the surgeon. Where the endeavors of the thoracic surgeon end and the otolaryngologist begin, or vice-versa, can be determined only on a cooperative basis. All the rhinoplasties should not be done by the otolaryngologist nor by the plastic surgeon. This is a matter of teamwork which should be arranged with the various departments over the next few years as otolaryngology emerges from its past into the place it should hold in the future.

It is easy to write about all of this. Change is difficult. Customs are strong and many people resist change. It is useless to write of it and have nothing come to pass. It would seem to the teachers of otolaryngology who

are interested in better teaching in the specialty that at least a start should be made in those schools where the teaching of otolaryngology does not come up to the minimal requirements suggested above.

Any school which fails to meet these minimal requirements is not teaching otolaryngology well. It is weak in this department and, if it is weak in this, it may be weak otherwise. It might be well for medical school deans to confer with the professor of otolaryngology and discuss these matters at some length. It is recognized that in some instances the fault probably lies with the personnel in the department. If this is so, steps should be taken to change the attitude of the members of the department or, if necessary, to change the personnel.

Otolaryngologists feel that undergraduate teaching should prepare the medical student to be a good general practitioner. If a student chooses thereafter to study for one of the specialties, that is his business. If it is the business of the medical schools of the country to make good general practitioners, and if 25 per cent or a neighboring figure represents the section of the general practitioner's practice which is otolaryngologic, it is the duty of the medical schools of the country to see that good otolaryngologic teaching is done.

The Medical School and Public Relations

Two-way communication between the medical school and the public is essential to the operation of any program of good public relations.

FOR YEARS the public relations functions of communication and interpretation have been ignored by many American medical schools. Faculties have been so busy educating students, conducting investigative research and rendering public service that they often have failed to tell their story to the public. As a result they have been misunderstood, misquoted, misrepresented and even mistrusted by the public, by private industry and by government.

Because the public has not been adequately informed, medical schools have been accused of restrictive practices, of seeking to limit the number of graduates for the economic benefit of the medical profession and against the public interest. False beliefs concerning the operation of medical schools have been fostered. And medical schools, despite outstanding research contributions, have been bitterly accused by antivivisectionists.

Sound public relations programs over a period of years undoubtedly could have provided a cushion against some of these misunderstandings.

At least part of the past difficulties

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encountered by some of the medical schools can be attributed to a lack of understanding of what public relations is and what it is not. There have been some misconceptions among medical educators as to the meaning of the term.

What Is Public Relations?

Public relations is not publicity, as it is commonly believed to be. Publicity is only one of the many tools which can be used in a public relations program.

Public relations is not the lavish entertainment of prospective donors, legislators, editors, civic leaders or individuals who can contribute in some way to the institution.

Public relations is not a propaganda program designed to help the medical school sell its program and gain public support. Propaganda has a connotation which suggests that the information is false, or biased, or perhaps both.

There have been many good definitions propounded for public relations

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Modifying slightly the definition advanced by *Public Relations News*, medical school public relations can be described as an administrative function which:

1. Evaluates public attitudes.
2. Identifies the policies and procedures of a medical school with the public interest.
3. Executes a program of action to earn public understanding and public acceptance.

Development of Responsibility

Medical schools presently are making important strides in the practice of public relations. One item of evidence of their interest is the sponsorship of the Medical School Public Relations Seminar, held annually in conjunction with the meeting of the American College Public Relations Association. Thirty-eight schools of medicine were represented at the three-day seminar held in 1952 at Cleveland. An equally good representation is anticipated at the 1953 meeting which will be held at Salt Lake City on June 28-July 1.

One of the most important factors in this development of public relations is the new concept of medical school responsibility. Medical schools, of course, must operate in the public interest if they are to gain needed support. All medical schools, whether private or tax-supported, are dependent upon the public to some degree. Therefore they have an obligation to render periodic accounts to the public on their programs and achievements through the use of available media of communication.

It is highly encouraging that those associated with medical schools now are developing a sincere and frequently apprehensive awareness of what all the various publics are thinking. It is being recognized that

what these publics—such as students and alumni—say about their school can be a most valuable endorsement. On the other hand, if these students and alumni do not have anything pleasant to say, their remarks represent a damaging indictment against the institution.

It also is encouraging that many deans and faculty members no longer regard public relations merely as a tool for meeting crises or fumigating unpleasant situations. Fortunately that attitude, which was so evident in recent years, gradually is being abandoned. Instead, educational leaders are learning that it is cheaper and far more effective to prevent crises in public attitudes than to try to cure them after they have been developed.

Occasionally a faculty or staff member will say that his school is too small to be concerned with public relations or, perhaps, that the medical school is merely one of many units within a large university. They infer that public relations is an activity designed only for large institutions. What these individuals do not realize is that public relations is something the school has whether it is wanted or not, and whether anything is done about it or not. The school started having public relations the day its first student was admitted. The choice then, is not whether a school will engage in public relations, but whether it will give constructive thought to having good relations with the public.

Operating Philosophy

Public relations is an operating philosophy that must permeate the entire organization from the chairman of the board of trustees to maintenance personnel on the midnight shift. Everyone connected with the school must share in the common job of communicating the essential facts

to the public. Regardless of capacity, the individual has an obligation to be sufficiently informed so that he can tell the general public about such matters as admission policies, costs of operation, services which the school renders and the place it occupies in the community.

In essence, a medical school public relations is dealings with people. When the receptionist or telephone operator is pleasant and helpful, that is public relations. When a faculty member takes part in a civic project and renders a valuable contribution to the community, that is public relations. When the school sponsors an open house and seeks to introduce its activities to the community, that is public relations. And when a student gets real satisfaction from the instruction he has received, and then tells his friends about it, that is public relations. In the most simple terms, then, public relations is merely good manners to win friends. It is a philosophy of doing all things at all times so that the medical school's family of friends constantly will be enlarged.

Public relations has the responsibility of giving the public the facts. Its job is to break down the barriers which separate medical schools and the general public.

First, it must be realized that public relations problems have existed in societies other than medical schools for many years. In the past, when all of society was more simple, these problems were not so complex. The dean of the medical school, for example, knew all of his faculty and students, as well as many of the alumni. He could deal face to face with public relations problems.

With the complicated society of today and with the expansion of many medical schools into large institu-

tions, it has become impossible to have the same direct personal relationships. To offset this handicap, modern society has tended to specialize in many ways. Now it is developing a specialty in dealing with relations between the institution and the public which it serves, as well as between the administration of the school and its faculty, staff and students.

It must be recognized that the public will have one of four attitudes toward the school. People will think well of it, they will think badly of it, they will be lukewarm toward it, or they will not know enough about it to have any opinion. Of these four attitudes, only the first is to the best interest of the school.

Planning a Program

If it can be assumed that good public relations is something every institution should have, the next step is planning a public relations program for a medical school. Basically there are five steps:

1. *Put your house in order.* The requisites of good public relations are high standards of operation, quality instruction and research, and a sincere desire to serve the public. There is great truth in the statement that "public relations begins at home."

In selling the institution to the public, the school itself is the product. Every dean knows the futility of trying to sell inferior instruction. The problem cannot be solved by hiring a first-class press agent who can interpret only what he sees. No amount of publicity will improve the institution's public relations if, basically, it is not operating in the interest of the public. On the other hand, if the medical school pursues a clean professional and business life, if it is fair

and honest in trying to give its faculty and staff, its students and alumni, and the general public a fair break, then good public relations becomes a very distinct possibility.

2. *Analyze how the school stands currently with its publics.* An effort should be made to find out whether a specific public relations program is needed, why it is needed, when it is needed and where it is needed. A scientific, objective opinion research survey should be the starting point for any school in the field of public relations. This survey—either formal or informal—should be undertaken: (1) to make certain there is a pressing need for specific public relations activity; (2) to obtain so-called guideposts such as activities, targets and themes which will be needed, and (3) to provide a base from which progress can be measured.

After the survey has been completed, a program for improvement should be formulated if need for one has been indicated. The two elements that might be considered in such a program are familiarity and reputation. Familiarity is very important since the publics should know about the school. It is not the total answer, however, since it is not to the school's advantage if everyone is familiar with its activities but does not feel too kindly toward them. Obviously, it is only when familiarity and good reputation are combined that something of lasting value may be achieved.

3. *Establish a public relations objective.* For the most part, this should not be too difficult. Basically, the goal of the program should be to have all the publics with which the medical school comes into contact know it readily and think well of it. This objective is simply to win friends for the institution. By winning friends

and developing favorable public attitudes, the medical school will have a basis for securing the moral and financial support it needs.

4. *Identify the publics involved in reaching the objective.* There are several broad groupings that apply to the medical school: (a) faculty, staff and employees; (b) students and alumni; (c) the school community, and (d) key opinion moulding groups such as editors, radio and television commentators, political leaders and officials of civic clubs and organizations.

The most important single group is the school's faculty, staff and employees. It is essential that the institution be sold to them first. Good employee relations are a prime factor in good public relations.

This fact was proved in a recent opinion survey taken on behalf of a large industrial company with plants in several communities. The objective of the survey was to find out what residents of the various communities thought of the company. The survey uncovered these interesting facts: 75 per cent of the people who held favorable opinions of the company received them from talking with one or more satisfied employees; 56 per cent of those who held unfavorable opinions received them from talking with one or more dissatisfied employees. This survey provides startling evidence of the importance of satisfied employees to any public relations program.

5. *Enter the phase of action.* This involves selecting the means to reach the various groups, then proceeding to tell them about the work that the medical school is doing. Rendering good instruction is not enough. It also is necessary to adopt a program of systematically telling the public about it. False modesty has no place

in this picture. It is only good common sense to recognize that public opinion is a powerful force that can make or break an enterprise. Bragging or self-praise, of course, should have no place in the telling. It is far better to say nothing at all.

What is needed in a good public relations program is the simple carrying of facts about the school and its activities to those whose good opinion is valued. The school's story should be told simply and truthfully through all available media. It is a continuous job of keeping the public informed of what it is doing, with emphasis on the services it renders to the public.

In carrying out this phase of a public relations program, initial consideration should be given to those groups which have a close natural interest in the institution. These include faculty, staff, employees, students, alumni, trustees, suppliers and firms and organizations which have contributed grants and gifts. Some of the available media are publications, exhibits, bulletin boards, annual reports, pamphlets and folders, and direct informational methods.

Attention can be focused on the entire school community and key opinion moulding groups, with special emphasis on those segments of the public whose support is needed. Some of the media available for reaching these publics include newspapers, magazines, radio, television, posters, exhibits, advertising, general publications, special events and programs, open houses and tours.

In presenting any story, the most important thing to remember is to give the public the facts. By so doing, public relations objectives can be furthered by dispelling many commonly-held false beliefs such as that only 10 per cent of those students who

apply for admission to medical colleges actually are accepted. Statistics on admissions compiled annually by the Association of American Medical Colleges, and published in the *Journal of MEDICAL EDUCATION*, disprove this erroneous belief and may be used to tell the true story.

When facts of this kind are presented, emphasis should be placed on repetition and continuity. Results cannot be obtained if the medical school's contributions and problems are described at only one meeting of the local Kiwanis club or in a single newspaper article. One telling of the story is not enough.

To accomplish results of lasting value, the public relations program must be a continuous, consistent, long-range operation. Goodwill cannot be achieved in 24 hours, nor can it be written on the books of public opinion so that it will remain there without subsequent entries. The public may think well of the school today, but by tomorrow the public may forget all about it.

Summary

The principles of public relations can be reduced to a rather simple formula. First of all, the activities of the institution must show a deep concern for the public interest. Secondly, it is necessary to communicate in two ways. We must know what the public expects of the school if the school is to be accepted by the public. Then, in order to reap the full advantages of responsible action, all available channels of communication should be utilized. This is necessary to make the community and the public aware of the quality of instruction, the important research contributions and the many public services which the medical school is rendering.

Editorials and Comments

The National Fund Moves Into High Gear

MEDICAL EDUCATORS everywhere have been encouraged by the increased tempo of activities shown recently by the National Fund for Medical Education. Most heartening of all was the recent speaking tour of important officials of the fund to such key cities as Pittsburgh, Detroit, Chicago, Cleveland and St. Louis.

Colby M. Chester, honorary chairman of the board of General Foods Corporation; William E. Cotter, counsel for the Union Carbide and Carbon Corporation, and Harry Heinemann, research director of the Pet Milk Company, took part in the week-long tour. Dr. Joseph C. Hinsey, dean of Cornell University Medical College and chairman of the Executive Council of the Association of American Medical Colleges, represented medical education. In each city visited, the meetings were arranged by local business leaders and addressed by local industrialists, medical educators and administrators and members of the visiting speakers' team as well.

The suggestion that national business leaders would be willing to give their time and energies to a week's tour to lay before local industrialists the problem of obtaining increased financial support from industry for the nation's medical schools would have been considered almost fantastic even a

few years ago. But such actually was the case, and the hard-hitting speeches made by these men minced no words. Among the facts pointed out was the important one that while industries are allowed to deduct up to five per cent of their net profit before taxes for eleemosynary giving, their total giving at present is only about five-eighths of one per cent.

Speaking as chairman of the Committee of American Industry of the fund, Mr. Chester set the goal of that committee at \$10 million for this year. He warned the nation's corporations to quit being "niggardly givers" if they hope to survive "the crisis here today which may well decide the future of private enterprise." He further stated that "the 79 medical schools—the seedbed of our future physicians and researchers—are the key not only to the maintenance of our present health standards, but to their continued advance. Not to support the medical schools would be as unwise as it would be for industry to permit its fire insurance to lapse for failure to pay premiums."

The National Fund for Medical Education was established in 1949 with Herbert Hoover as honorary chairman, S. Sloan Colt as president, William E. Cotter as secretary, and Samuel D. Leidesdorf as treasurer. In its comparatively short existence, the fund has al-

ready raised and allocated more than \$3 million to the 79 medical schools. The usefulness of these funds, given without restrictions, far outruns their actual size.

Medical education is very fortunate indeed that business leaders of the type of Mr. Colt, Mr. Cotter and Mr. Chester have sensed its urgent needs and are actually attempting to establish a pattern of corporate giving that may make it possible for the schools to improve and extend their programs of teaching and research.

More Time in the Curriculum

THE PLEA for more time in the curriculum is a perennial one voiced by almost every medical teacher who feels the importance of his subject. In preceding pages of this issue of the *Journal*, spokesmen for psychiatry and otolaryngology state their case. Spokesmen for anesthesiology, physical medicine, preventive medicine, biophysics, urology, dermatology and many other specialties could make equally strong pleas for their fields of endeavor.

With the science of medicine developing as rapidly as it is in all its specialty fields, the problem of simply introducing the undergraduate medical student to the various specialties, and making him aware of what special diagnostic and therapeutic procedures each has to offer, is a complex one indeed.

Many curriculum committees have apparently attempted to solve the problem by increasing the total

hours in the curriculum. Anderson, Manlove and Tipner* found that between 1948 and 1952 the average length of each academic year had been increased by one week. The first year now averages 35 weeks in length, the second 35 weeks, the third 36 weeks, and the fourth 37 weeks. And there are instances of 44-week first years, 46-week second years, 50-week third years and 50-week fourth years.

Defenders of this policy of lengthening the academic year point out that medical college students have graduated from the "country club atmosphere of the liberal arts college" and are of the same age, maturity and condition of their nonmedical friends who, having graduated from arts college, are now working "at least 50 weeks a year to make a place for themselves in business or some equally arduous field of endeavor."

There are, however, some curriculum committees that refuse to accept lengthening of the academic year as a sound answer to the problem. They point out that medicine already has the longest and most expensive educational program of any of the professions and that further lengthening and further interference with income-producing summer work will tend to reduce the number of students of modest means who will find themselves able to undertake such a formidable and expensive training. Rather than "price itself out of the field by unreasonably lengthening the

*ANDERSON, DONALD G., M.D.; MANLOVE, FRANCIS R., M.D.; TIPNER, ANNE: "Medical Education in the United States and Canada," *JOURN. AM. MED. ASSN.* Vol. 150, No. 2 p. 105. September 13, 1952.

curriculum," these committees suggest revising the curriculum and "telescoping or omitting some of the old material in order to make room for the new."

The Association's statement, "The Objectives of Undergraduate Medical Education,"* begins as follows: "Undergraduate medical education must provide a solid foundation for the future physician's development. It should not aim at presenting the complete, detailed systematic body of knowledge concerning each and every medical and related discipline. Rather, it must provide the setting in which the student can learn fundamental principles applicable to the whole body of medical knowledge, establish habits of reasoned and critical judgment of evidence and experience, and develop an ability to use these principles and judgments wisely in solving problems of health and disease."

With this general objective in mind, every medical school should have a curriculum committee constantly at work making sure that those things that really deserve time in the curriculum get it and that no department holds time simply on the basis of tradition, "squatter's rights" or special pleading.

Program for the 1953 Teaching Institute

THE ANNOUNCEMENT of the Association's Teaching Institute in Physiology, Pharmacology and

*"The Objectives of Undergraduate Medical Education," *Journ. Med. Edu.* Vol. 28, No. 3, March 1953.

Biochemistry, to be held in Atlantic City October 19-23, 1953, has aroused considerable interest among teachers in these departments. Since the five-day Institute is planned as a "working conference," with 6 to 12 small discussion groups working simultaneously, the participants must be limited to a small invited group.

To provide an opportunity for all teachers to participate, at least indirectly, the committees have decided to select one delegate from each medical school. The delegate will have the responsibility for obtaining the suggestions of his fellow faculty members in physiology, pharmacology and biochemistry at his own medical school so that he may present these views as well as his own at the Institute. A list of delegates will be published in an early issue.

The major problems to be discussed at the Institute are those related to (1) content of these courses; (2) interrelationships between these departments and all other departments in the school and university; (3) the selection, training and rewards of teachers, and (4) teaching, learning and evaluation techniques. The committees considering these problems are:

Committee on Curriculum (Content): George H. Acheson, professor of pharmacology, Cincinnati, chairman; Alfred Gilman, professor of pharmacology, Columbia; Philip Handler, professor of biochemistry, Duke; John W. Patterson, associate professor of anatomy, Western Reserve; Robert F. Pitts, professor of physiology and biophysics, Cornell.

Committee on Interrelationships: Eugene M. Landis, professor of physiology, Harvard, chairman; Alan C. Burton, professor of biophysics, Western Ontario; William J. Darby, professor of biochemistry, Vanderbilt; Hymen

S. Mayerson, professor of physiology, Tulane; Theodore C. Ruch, professor of physiology and biophysics, Washington (Seattle); Isaac Starr, professor of research therapeutics, Pennsylvania.

Committee on Problems Related to the Teacher: Abraham White, professor of biochemistry, Albert Einstein Medical School, chairman; Robert S. Cohen, assistant professor of philosophy and physics, Wesleyan; Louis S. Goodman, professor of pharmacology, Utah; Hebbel E. Hoff, professor of physiology, Baylor; Louis H. Nahum, pro-

fessor of physiology, Yale; DeWitt Stetten Jr., chief, Division of Nutrition and Physiology, Public Health Research Institute of New York City.

Committee on Teaching and Learning Techniques: Victor E. Hall, professor of physiology, California (Los Angeles), chairman; William F. Hamilton, professor of physiology, Georgia; Carl F. Schmidt, professor of pharmacology, Pennsylvania; Elmer H. Stotz, professor of biochemistry, Rochester; Jay Tepperman, professor of pharmacology and experimental medicine, State University of New York at Syracuse.

Interim Report of the Committee on Public Information

THE QUESTION of medical school public relations currently is under consideration by the Association of American Medical College's Committee on Public Information. The committee was directed to undertake such a study by the Executive Council in November 1952.

When the committee met in February, a number of possible projects and some proposals for further study were discussed. Committee members, led by Chairman John L. Caughey Jr., outlined two primary objectives: (1) to assist individual schools in developing effective public information programs, and (2) to increase public understanding of medical education.

The committee voted:

1. To conduct a sampling of medical schools to determine the feasibility of providing an exchange of information about public relations problems and solutions that have proved effective.

2. To cooperate with an agency not affiliated with the AAMC, which is gathering data from medical schools on their public information activities, organization and personnel. A questionnaire had been distributed to 82 schools at the time of the committee meeting and 46 replies had been received.

3. To request the AAMC to invite the National Fund for Medical Education to designate a member of its staff to sit

with the committee as an ex-officio member.

4. To write the Executive Council, expressing the committee's interest in clarifying the responsibility for publicity at the AAMC annual meetings, especially in respect to inviting reporters and in determining procedures to be used in classification of various meetings and stories.

The committee also discussed the advantages of working in close cooperation with the Journal of MEDICAL EDUCATION and other AAMC sections. Members felt that since the committee has no available funds and no technical staff, such assistance, as well as efforts of individual members, would be necessary if a public information program is to be developed.

Close cooperation with the Medical Section of the American College Public Relations Association also is needed, committee members agreed, and can be accomplished best through the members common to both groups. The Medical Section has had three annual meetings and will meet again June 28-July 1 in Salt Lake City.

(An article describing the public information responsibilities of the medical school and some general public relations practices and procedures is published on page 33 of this issue of the Journal.)

NEWS DIGEST

Preventive Medicine

The AAMC has received a grant of \$4,000 from the W. K. Kellogg Foundation to finance the preparation and publication of a report of the conference on the teaching of preventive medicine, held last November at Colorado Springs, Colo. The report will be printed as a special supplement to the *Journal of MEDICAL EDUCATION* and will be approximately 100 pages long. It is scheduled for publication in September or October.

Protein Foundation

Seven business and scientific leaders have received a charter for a new nonprofit corporation, Protein Foundation Inc. The foundation will hold and administer patents covering discoveries of importance in the field of therapeutics and public health, will arrange for research and development work to make available laboratory discoveries of use to the medical profession, and will provide support for continuing basic scientific research. Chester I. Barnard, former president of New Jersey Bell Telephone and the Rockefeller Foundation, and now chairman of the National Science Foundation, is chairman of the new corporation.

The foundation will administer patents wholly in the public interest without profit to the inventor, his university or the foundation.

Medical Veterans

Some 12,000 doctors, members of a recently formed nationwide Medical Veterans Association, are working to influence future legislation when the

present doctor-dentist draft measure expires June 30.

Dr. David T. Curtis, Toledo, Ohio, secretary of the association, says that the group wants physicians who have served 20 months or more to be draft exempt until all who have not served have been called. They favor continuing the draft age limit to 51 years.

The association was organized in Ohio last November, and several other chapters have been chartered since. A national meeting will be held in New York in June in conjunction with the AMA annual session.

Applied Microbiology

The first issue of a new bi-monthly journal, *Applied Microbiology*, was published in January 1953 by the Williams & Wilkins Company, Baltimore, under the sponsorship of the Society of American Bacteriologists. Subscription price is \$7.50 annually. The periodical publishes studies dealing with the application of microbiological sciences to such fields as industry, foods, sanitation and agriculture.

Deduction Proposal

A bill now in the Ways and Means Committee may make it possible for doctors to deduct the cost of graduate studies as a business expense. HR 4393, introduced by Representative Davis (D., Ga.) on April 1, provides that additional education which helps an individual carry on a profession, improve professional qualifications or increase professional remuneration is a business expense deductible from taxable income.

Meetings

Federation Meeting

More than 6,000 registrants attended the 37th annual meeting of the Federation of American Societies for

Experimental Biology, held in Chicago, April 6-10. The meetings, at which some 1,556 scientific papers were presented, were held simultane-

ously in four hotels. Abstracts of these papers have been published and are available from the federation.

The organization is composed of members of the American Physiological Society, the American Society of Biological Chemists, the American Society for Pharmacology and Experimental Therapeutics, the American Society for Experimental Pathology, the American Institute of Nutrition and the American Association of Immunologists.

Certain of the special meetings were of particular concern to medical education and were well attended by federation members from the medical schools.

A PANEL DISCUSSION on the teaching of pharmacology was held Monday evening, April 6, under the leadership of Dr. Chauncey D. Leake, University of Texas, Galveston, and Dr. Robert A. Woodbury, University of Tennessee. Most of the discussion centered around the relationship of pharmacology with other disciplines, the special problems of pharmacology and methods of solving them.

Divergent opinions were expressed regarding the place of pharmacology in the medical school curriculum. It was agreed generally that increasing coordination between pharmacology and other departments is desirable.

Many methods of teaching were discussed and some interesting personal experiences recounted. The use of slides was demonstrated, and brief discussions of the use of movies, special projects and chronic experiments were given. It was the consensus that method is less important than the enthusiasm the instructor brings to his class.

SOME PAPERS WITH particular application to medical schools were presented at a special teaching session of the American Physiology Society on Thursday afternoon, April 9. Chairman of the meeting was Dr. D. B. Dill, scientific director of the Army Chemical Center.

Dr. Richard K. Overman, Univer-

sity of Tennessee, presented a paper prepared in collaboration with Dr. A. K. Davis on an experimental method of laboratory teaching in a medical physiological course. Students are divided into groups of four and allowed to choose a research topic. The class is divided again into four groups for formal instruction, each person from a research group attending a class which emphasizes a different aspect of the course. The original groups are then re-formed and members pool their knowledge for research. It is the aim of the course to encourage independent thinking and to orient the students for future research. Several attending the session reported similar teaching experiments.

DR. G. N. LOOFBOURROW, University of Kansas, presented an inexpensive audiovisual aid, consisting of a combination of lantern slides and records. While a slide showed the tracing of heart action as it was affected by the administration of certain drugs, for example, the recording reproduced the actual heart sounds.

PHYSIOLOGY WAS FEATURED again at a special session of the federation Thursday evening under the chairmanship of Dr. Ralph W. Gerard, University of Illinois. The topic was a progress report on the survey of physiological sciences, which is now entering its second year.

Dr. L. M. N. Bach, Tulane, executive director of the survey, discussed the aims of the investigation in terms of material they hope to obtain. Methods used include analyzing data gathered by previous investigators, mailing questionnaires to experimental biologists and conducting certain special projects and surveys.

One special project was described by Dr. Anne Roe, New York City, who has been in charge of the testing program to determine the personality patterns of experimental biologists. She found that a strong motivation toward their work was the most im-

portant characteristic for success. This motivation generally dated from the time the individual completed his first successful independent research. If more biologists are to be developed, Dr. Roe believes, the presentation of science at the primary and secondary school level must be changed so that young men and women realize the possibilities it holds for them.

Dr. Orr E. Reynolds, Office of Naval Research, reported on physiology in the undergraduate and graduate schools. He said that the teaching of physiology is decreasing in the undergraduate colleges, chiefly because of the influence of the medical schools, which prefer that pre-medical students not take college physiology courses. Since many Ph.D. candidates originally take premedical courses, they often enter graduate training with little preliminary preparation and without a basic understanding of physiology. Dr. Reynolds was executive director of the pilot phase of the survey which was set up to determine the questions to be answered by the survey, to assay the amount of data already available and to devise ways of gathering additional information.

Dr. J. H. Comroe Jr., University of Pennsylvania, discussed physiology in the professional schools. Dr. Comroe is chairman of the steering committee of the Teaching Institute on Physiology, Pharmacology and Biochemistry, to be held October 19-23 in Atlantic City.

The physiological survey is supported by the National Science Foundation and is to be completed by June 30, 1954. It is the first of a series of such surveys the foundation hopes to sponsor, with the intention of developing a strong national science policy.

IN CONJUNCTION WITH the federation sessions, a dinner meeting was held Tuesday, April 7, by the recently organized Society of Young Medical Educators. The group began in-

NEW DIRECTORY

The 1952-53 edition of the AAMC Directory was published and distributed to the medical schools last month. Additional copies are available and will be sent upon request; address the secretary's office, Association of American Medical Colleges, 185 N. Wabash Ave., Chicago 1.

formally at the time of the 1952 federation meeting. Its purpose is to discuss medical teaching and methods, in an effort to aid and acquaint members with some of the problems of medical education.

The program of the meeting included a discussion by Dr. John Patterson, coordinator of Phase I of the new experimental curriculum at Western Reserve University. Dr. L. M. N. Bach was in attendance and answered questions regarding the Survey of Physiological Science. The program was followed by a business meeting at which the steering committee named three subcommittees.

Members of the steering committee are: Dr. John Hampton, Tulane, who was instrumental in the founding of the group; Dr. Julius Kahn, Cincinnati, and Dr. Fred Schueler, State University of Iowa.

The publication and communication committee plans to prepare three issues of a bulletin during the coming year. The first issue will contain an abstract of the address by Dr. Patterson. Committee members are Dr. James B. Preston, University of Illinois; Dr. Stewart C. Harvey, University of Utah, and Dr. William Coon, University of Michigan.

Members of the aims and constitution committee, who will draw up formal statements regarding the group, are Dr. E. F. Van Maanen, Cincinnati; Dr. Benjamin Libet, University of California, and Dr. Hugh Keasling, University of Illinois.

Membership committee members are: Dr. Harold Barrett, University of Kansas; Dr. Edward Pelikan, University of Illinois; Dr. B. J. MacIntosh, Louisville, and Dr. Arthur Up-

ton, Oak Ridge, Tenn. Membership qualifications have not yet been determined. Further information concerning the society may be obtained from Dr. Preston or Dr. Harvey.

National Health Conference

A forum on "Advancing the Nation's Health" was featured during the recent annual meeting of the National Health Council in New York City. Representatives of professional groups, voluntary and governmental agencies concerned with health care, and consumer groups participated.

The forum opened with discussion of the report of the Commission on the Health Needs of the Nation. Then five groups simultaneously considered health personnel, health facilities, organization of health services, payment for personal health services, and health research. Preliminary reports were brought to the dinner meeting which closed the forum.

Dr. Alan Gregg, vice president of the Rockefeller Foundation, was chief speaker at the dinner session. Dr. Gregg advocated establishment of a general medical council—a voluntary agency which could study and clarify confused issues in national health and act as a clearing house for information and opinion between professional groups, cooperating medical agencies and consumers. According to Dr. Gregg, members of the National Health Council, while representatives of the various health fields, should not be "the delegates representing a constituency" in the proposed general medical council.

In his address, Dr. Gregg also pointed out that "it would be cheaper to stop paying the costs of working together if the deeper interest is really working apart."

Business Meeting: During the business meeting, council delegates approved in principle a statement of program policy that opens broad new fields of activity. Other aspects of the council program approved are continuing and extending promotion of

state and local health councils and full-time local health departments, and public informational activities.

Dr. Robin C. Buerki, director of Henry Ford Hospital, Detroit, was installed as president during the meeting. Officers elected are: *president-elect*, Albert W. Dent, president, Dillard University; *vice presidents*: Margaret A. Hickey, public affairs editor, *Ladies Home Journal*; Basil O'Connor, president, National Foundation for Infantile Paralysis; Dr. Donald B. Armstrong, vice president, Metropolitan Life Insurance Co.; *treasurer*, Philip R. Mather, president, American Social Hygiene Association; *assistant treasurer*, Herbert I. Wood, manager, 57th Street Branch, Chase National Bank; *secretary*, Rome A. Betts, executive director, American Heart Association.

WHO Citizens' Committee

Health specialists, educators and interested citizens participated in the first meeting of the National Citizens' Committee for the World Health Organization in Washington last month. Purpose of the committee is to acquaint the American people with the relationship of public health to general welfare and peace throughout the world and to increase appreciation of the importance of international health programs.

In a discussion of the new committee in the *New York Times*, Dr. Howard Rusk called development of such public health activities vital to world peace. He said that the WHO "has a great contribution to make in the development of the healthy economic and social environment that is essential to a peaceful world. It must have the understanding and help of the peoples of the world if it is to fulfill this responsibility."

The committee met April 7, World Health Day, which was observed throughout the world. The meeting was held in conjunction with the April 6-8 National Conference on World Health.

Fellowships, Grants, Awards

Commonwealth Fund

The recently released annual report of the Commonwealth Fund shows that 70 per cent of the \$2,719,737 appropriated by the fund in 1952 went for medical education and research. The bulk of the money was used to set up teaching programs with emphasis on the socio-economic aspects of medical education. The fund is particularly concerned with the development of comprehensive medicine.

National Science Foundation

The National Science Foundation last month announced awards to 556 research workers in the natural sciences. The largest group of scientists, 129, will conduct research in chemistry. Other fields represented are physics, engineering, mathematics, zoology, biochemistry, botany and microbiology. Awards are made to undergraduate and postdoctoral students, with the aim of increasing the supply of scientists and engineers.

Rockefeller Foundation

University College, London, has received a five-year grant of \$28,200 from the Rockefeller Foundation to continue investigation of the selection and teaching of medical students. Dr. John Z. Young, professor of anatomy, is in charge. The study is concerned specifically with the development of methods to train preclinical students in observation and reasoning.

Criss Award

Dr. Howard A. Rusk, New York, was presented the 1953 Criss Award at the annual dinner of the American College of Physicians, April 16 in Atlantic City, N. J. The award consists of a \$10,000 prize and a gold medal. It is given to public spirited men and women who have aided the cause of

humanity. Dr. Rusk is director of the Institute of Physical Medicine and Rehabilitation at New York University-Bellevue Medical Center, N. Y., and associate editor of the *New York Times*.

Honor Medical Historian

Dr. Erwin H. Ackernecht, professor of the history of medicine at the University of Wisconsin Medical School, received the William H. Welch Medal "for particular contributions of outstanding scholarly merit in the field of medical history." The award was made at the annual meeting of the American Association of the History of Medicine held at Columbus, Ohio, April 11. Dr. Ackernecht is the third recipient of this award.

1953 BORDEN AWARD

Nominations for the 1953 Borden Award in the Medical Sciences will be accepted until July 1. The Award, presented each year since 1947 by the Association of American Medical Colleges and the Borden Company Foundation, is given for "outstanding research in medicine conducted by a member of the faculty of an affiliated college" published in the preceding five years.

Nominations may be submitted by any faculty member connected with a medical school holding AAMC membership. Five copies of each nomination should be submitted, containing the academic history and scientific accomplishments of the candidate and a reasoned statement of the basis for the nomination. Suggested names and supporting evidence should be sent to Dr. Dean F. Smiley, AAMC secretary, 185 North Wabash Ave., Chicago 1. All nominations will be turned over to the Borden Award Committee after July 1, and the Award recipient will be announced at the Annual Meeting in October.

Only one award will be made in any one year. If two or more persons have collaborated on a project selected, the Award will be presented to the group and replicas of the medal given to each collaborator. A nominee who fails to receive the Award may be nominated for the same work in a subsequent year.

Teaching Developments

Correspondence Courses

Correspondence courses to keep practitioners up to date on medical developments have been recommended by Dr. R. B. Robins, Camden, Ark., president of the American Academy of General Practice. Dr. Robins made the suggestion at the recent annual meeting of the academy in St. Louis.

He believes that doctors who practice in isolated areas could benefit greatly from a course consisting of selected reading lists with accompanying questions to be answered and submitted for grading. Such a system is already being used by the postgraduate teaching department of Montreal General Hospital.

College Briefs

University of Alabama

Dr. J. F. A. McMANUS has been appointed professor and chairman of the department of pathology. He has been associate professor at the University of Virginia since 1950.

University of Arkansas

The Arkansas General Assembly at its recent session took action which assures completion of the medical center in Little Rock at a total cost of approximately \$13 million. The first unit in the center, a 450-bed teaching hospital and clinic, is now under construction and is expected to be completed in the fall of 1954. The recent legislative action makes possible the construction and equipping of a building to house the school of medicine, the school of pharmacy and a newly established collegiate school of nursing, as well as a women's dormitory. The entire medical center is expected to be ready for occupancy in 1955.

University of Buffalo

A postgraduate course in geriatrics was presented in conjunction with the Western New York Geriatrics Society, April 22-23. Visiting faculty members for the course included Dr. NORMAN JOLLIFFE, associate professor of nutrition, Columbia; Dr. THOMAS H. MCGAVACK, professor of medicine,

New York (N.Y.) Medical College, and OLLIE A. RANDALL, consultant on services for the aged of the Community Service Society of New York City.

Refresher courses in pediatrics will be offered in cooperation with the Medical Society of the State of New York and the Bureau of Maternal and Child Health, New York State Department of Health on these dates: May 18-30, June 8-20. Interested physicians should contact the Bureau of Maternal and Child Health, 39 Columbia St., Albany 7.

University of Chicago

Dr. ERNST TRIER MÖRCH is the new head of the division of anesthesiology. He has been professor of surgery at the University of Kansas.

University of Cincinnati

A \$9,700 grant has been received from the Damon Runyon Memorial Fund for research in the gastric laboratory at Cincinnati General Hospital, directed by Dr. LEON SCHIFF, associate professor of medicine. He will make studies of the cellular content of various digestive secretions in an effort to make earlier diagnosis of cancer of the digestive tract.

Columbia University

Dr. ALAN GREGG, vice president of the Rockefeller Foundation, de-

livered the sixth annual series of Bampton Lectures in America. The lectures were planned "to present the view that a revolution is well under way in the status of medicine and its effect on human life."

Cornell University

Dr. VINCENT DU VIGNEAUD, head of the department of biochemistry, has been awarded the 1953 Osborn and Mendel Award in Nutrition for outstanding accomplishments in the general field of exploratory research in the science of nutrition. He received the award at the annual dinner of the American Institute of Nutrition in Chicago, April 8.

Duke University

A newly - organized Orthopedic Club held its first annual meeting at Duke Hospital, April 9-11. About 40 members from throughout the nation attended scientific and business sessions. All members are qualified orthopedic surgeons trained in the Duke Hospital-Warm Springs, Ga., training program sponsored by the National Foundation for Infantile Paralysis.

Members of the Virginia Obstetrics and Gynecological Society were guests at Duke Hospital and the medical school for a scientific meeting, April 5-7. Members attended operative clinics, pathological demonstrations and a series of lectures by members of the obstetrics and gynecology department. Dr. BAYARD CARTER, chairman of the department and president-elect of the American Academy of Obstetrics and Gynecology, is an honorary member of the Virginia society.

George Washington University

A grant of \$5,377 for cancer research has been received from the Public Health Service. Research will be under the direction of Dr. IVOR CORNMAN, assistant research professor of anatomy, and will involve the testing of various antibiotics to

discover some substance which will kill cancer cells in the way that antibiotics are known to kill bacteria and viruses.

Medical College of Georgia

The regents of the University System of Georgia have announced their acceptance of the request of Dr. G. LOMBARD KELLY for retirement as president of the medical college. Dr. EDGAR R. PUND, head of the department of pathology, has been appointed president, and will assume the office upon Dr. Kelly's retirement July 1. Dr. Kelly has been associated with the college for 35 years as teacher, dean and president. Upon his retirement from administrative duties he plans to devote his time to medical practice and research.

Announcement has been made of the appointment of Dr. HARRY B. O'REAR as dean of the faculty, and Dr. RUFUS F. PAYNE as dean in charge of hospital administration.

Plans are well under way for development of a medical center. The State Hospital Authority recently awarded the contract for construction of a state general hospital of 800 beds at a cost of \$10 million, exclusive of equipment. The hospital is designed as a teaching hospital. Bids have been advertised for construction of an administration building to cost \$660,000. A new health center building to house the activities of the Richmond County Board of Health is nearing completion on the medical school campus.

The departments of physiology and pharmacology have received grants from the National Heart Institute, Public Health Service and the American Heart Association, Inc., to establish a training course for cardiovascular investigators. These grants will total more than \$200,000 over a five-year period. The training course will be open to qualified physicians from over the entire country. Dr. W. F. HAMILTON, professor of physiology, and Dr. R. P. AHLQUIST, professor of pharmacology, will direct the course.



ARCHITECT'S MODEL of the University of Arkansas Medical Center in Little Rock, scheduled for completion in 1955. The teaching hospital is now under construction.

Harvard Medical School

DR. JOHN F. ENDERS, associate professor of bacteriology, will be presented the Passano Foundation award for 1953 during the annual meeting of the AMA in New York City next month. Dr. Enders receives the \$5,000 cash award for his work in development of methods for culturing poliomyelitis viruses in tissue. This is the 9th annual award of the Passano Foundation Inc., established by Williams & Wilkins Co., Baltimore.

Dr. JOSEPH S. BARR, professor of orthopedic surgery, and Dr. FREDERICK J. STARE, professor of nutrition, are members of a 13-man team on a health mission to Indonesia, sponsored by WHO and the Unitarian Service Committee.

Dr. JAMES METCALFE, an assistant in medicine, has been named one of six new established investigators by the American Heart Association. He will study heart disease during pregnancy. As an "established investigator" he will have the opportunity to carry out research for a period of five years.

University of Illinois

Recent research grants include: \$10,000 from Lederle Laboratories for investigation of infectious diseases and related fields; \$8,000 from the Teagle Foundation Inc. for renewal of a grant in support of research in paralysis agitans; \$5,000 from Smith, Kline and French Laboratories to provide a fellowship for the current academic year; \$10,000 from Mallinckrodt Chemical Works for studies on anticonvulsant drugs and in support of a fellowship; \$6,000 from Charles Pfizer and Company for investigations in infectious diseases, preventive medicine and related fields.

University of Iowa

Dr. NORMAN BARTRAM NELSON, now assistant dean at the University of California (L.A.), has been appointed dean, effective in July.

Jefferson Medical College

A four-story brick structure directly across the street from the entrance of the college has been pur-

chased and will be adapted for use by a number of offices and activities of the college and hospital, including employment offices, accounting offices, purchasing department, the employee health service and temporary consultation offices for the staff.

University of Louisville

Three new sections have been established in the department of medicine. They are rheumatic diseases, with Dr. ROBERT L. MCCLENDON as chief; hematology, with Dr. MARION BEARD as chief, and endocrinology with Dr. JAMES ROBERT HENDON as chief.

Dr. WALTER S. COE, assistant professor of medicine, has been awarded an A. Blaine Brower Traveling Scholarship by the American College of Physicians. The scholarships permit the recipient to spend one month visiting any medical center of his choice.

The Floyd Brewer Memorial Foundation has been established by Dr. WALTER E. BREWER, an alumnus. The money is to be used as a loan fund for students and interns.

The board of trustees has approved a new chair in the department of internal medicine, to be called the John Walker Moore Professorship of Medicine.

College of Medical Evangelists

The annual alumni postgraduate convention was held in Los Angeles, March 8-10, with a physician registration of 1,200. Associate Dean VARNER JOHNS JR. was chosen president-elect, and WALTER CRAWFORD was named executive secretary of the association.

The audio-digest enterprise—which will aid development of a popularly-accepted time saver to help physicians keep up to date with medical developments by listening to tape recorded digests and summaries—was made part of the alumni research foundation. The audio-digest machine can be used by physicians either at home or in the car.

University of Missouri

Dr. WILLIAM A. SODEMAN, of the medical faculty at Tulane, has been appointed professor of medicine effective July 1. He also will be chairman of the department and will assist in planning and detailed organizing of the four-year medical school program and facilities.

State University of N. Y. (Syracuse)

Dr. WILLIAM A. BRUMFIELD JR., first deputy state commissioner of health, has been appointed professor and chairman of the department of public health and preventive medicine effective September 1. Dr. C. A. SARGENT has been serving as acting chairman of the department.

State University of N. Y. (Brooklyn)

Ground was broken April 9 for the \$40 million downstate medical center. First unit is a basic science building 11 stories high and three blocks long. It is scheduled for completion in 1955. After this building is open, the college plans to increase the size of its entering class from 150 to 200.

New York Medical College

Dr. WINFRED OVERHOLSER delivered the annual Charter Day lecture April 13 in observance of the 93rd anniversary of the college. His subject was "A Psychiatrist Views Medicine." Dr. Overholser is superintendent of St. Elizabeth's Hospital, Washington, D.C., and professor of psychiatry at George Washington University.

University of North Carolina

The 450-bed memorial hospital was formally dedicated in ceremonies April 23-24. Guests toured the expanded medical school and the schools of pharmacy, dentistry and nursing.

University of North Dakota

Recent grants include: \$11,200 from the late GUY IRELAND and Mrs.

BERTHA IRELAND to obtain special laboratory equipment for the biochemistry department; \$10,000 from the North Dakota Cancer Society for studies by Dr. R. G. FISCHER on the relationship of viruses to cancer.

Northwestern University

Dr. FREDERICK W. MERRIFIELD has been appointed the new director of the Cleft Lip and Palate Institute, succeeding Dr. JOHN R. THOMPSON who continues as a member of the staff. Dr. WALTER W. DALITSCH has been named associate director of the institute.

Dr. SAUL MALKIEL, assistant professor of medicine, has received a renewal grant of \$6,000 to continue research to determine the mechanism involved in the production of hypersensitivity. The grant was made by the Philadelphia pharmaceutical firm of Sharp and Dohme, which has a noncommercial foundation division for research work.

University of Oregon

Five separate contracts for the new medical school general hospital were awarded last month. Construction has begun on the structure, which will cost \$6,480,938 for building and equipment.

The scientific meeting of medical school alumni was held this year in conjunction with the annual Sommer Lecture series and the meeting of the Oregon chapter of the American Academy of General Practice, April 22-24.

The annual postgraduate course sponsored by the Oregon Chapter of Ophthalmology and Otolaryngology was held during the week of March 23. Some 90 doctors registered for ophthalmology and 50 for otolaryngology. Dr. HERMANN M. BURIAN, associate professor of ophthalmology from the State University of Iowa College of Medicine, delivered the annual John E. Weeks memorial lecture on "The Electric Response of the Human Visual System."

Dr. FREDERICK A. KIEHLE, emeritus professor of ophthalmology, died March 22. He served as a professor at the school for 33 years until his retirement in 1950.

Grants received recently by the medical school include: \$7,200 from the Lilly Research Laboratories for studies under the direction of Dr. W. R. TODD, associate professor of biochemistry, relating to the adrenal mechanism by which glycine feeding increases glycogen stores. The Lilly Research Foundation also has given \$13,000 for study of metabolic and liver changes in experimental porphyria, under the direction of Dr. ROBERT A. ALDRICH, assistant professor of pediatrics, Dr. E. S. WEST, professor and head of the department of biochemistry, and Dr. ELTON McCRAWLEY, associate professor of pharmacology. The March of Dimes has given \$49,800 for the continued study of poliomyelitis.

University of Pennsylvania

Dr. JAMES D. HARDY has been appointed professor of physiology at the medical school and scientific director of the Aviation Medical Acceleration Laboratory of the Naval Air Development Center, Johnsville, Pa. He will begin his new duties July 1. An affiliation agreement between the two institutions, which have reciprocal arrangements for medical research, provides for a mutual exchange of personnel and facilities and for the appointment of qualified personnel at Johnsville to faculty status at the university. Dr. Hardy is presently associated with Cornell.

University of Southern California

A \$25,000 grant to assist in the education of medical students has been received from the Henry J. Kaiser Family Foundation. The money will be awarded as grants-in-aid to needy medical students in the next three to five years.

Medical College of South Carolina

Recent grants include: three grants from the National Institutes of Health totaling \$19,664 to the department of bacteriology, and \$6,500 to the department of neuropsychiatry. For the fifth consecutive year the college has been awarded a \$25,000 cancer training grant by the Public Health Service.

University of Tennessee

Dr. R. A. DIVISON of Shreve, Ohio, and Dr. KARL MESSINGER of Grahamsville, N. Y., have become trainees in the general practice office on an apprenticeship basis to learn how to organize and operate general practice departments in other medical schools. The training period is two years, and one new man will be appointed each year.

In cooperation with LeBonheur Children's Hospital, the college will offer a three-day postgraduate course in pediatrics May 20-22, under the direction of Dr. TOM MITCHELL, chief of the division of pediatrics. Course registration will be limited to 20 physicians.

Dr. ROGER E. KOEPPE, instructor in chemistry, has been awarded an \$8,000 research grant by the National Science Foundation to finance a study of "precursors of the carbon of glutamic acid." Dr. CHARLES H. EADES JR., assistant professor of chemistry, has been awarded a \$4,995 grant from the American Cancer Society to study the amino acid content of the blood and urine of cancer patients.

Washington University

The Commonwealth Fund has renewed its grant to the division of psychosomatic medicine. The grant renewal, which will begin July 1, will provide \$20,000 a year for two years.

Dr. HARVEY LESTER WHITE, professor of physiology and head of the department, has returned from a three-month teaching assignment in

Bangkok, Thailand. He also visited several medical schools in Europe.

Dr. LAWRENCE T. POST, professor of clinical ophthalmology and head of the department, who is to retire in July, was honored with a testimonial program March 27-28.

Western Reserve University

More than \$2 million will accrue to the school of medicine from a bequest in the will of Mrs. GERTRUDE CHANDLER TUCKER for use in research pertaining to children's diseases. The provisions of the "Gertrude Chandler Tucker Memorial Fund" also gives the university broad powers to use the funds for study in other medical and surgical fields if desired.

Dr. FRANK E. NULSEN will become professor of neurosurgery in July, as the first occupant of the Harvey Huntington Brown Jr. Chair. He is associated with the University of Pennsylvania.

University of Wisconsin

A postgraduate course in pediatrics will be held May 19-21, under the direction of Dr. JOHN E. GONCE JR., professor of pediatrics. He will be assisted by faculty members from various departments of the medical school.

Women's Medical College

Dr. CATHARINE MACFARLANE, research professor of gynecology, was the recipient of the first annual Silberman Memorial Group Award for her work in cancer detection. The citation also refers to her "enlightened teaching which has guided others."

Yale University

Dr. WALTER R. MILES, professor of psychology, and Dr. HERBERT THOMS, professor of obstetrics and gynecology, will retire at the end of the current academic year. Dr. Miles joined the faculty in 1932. Dr. Thoms has been a member of the faculty since 1915.

Audiovisual News

Library of Congress Cards for Motion Pictures—How Do We Use Them?

A CARD SYSTEM has long been considered indispensable in cataloging, classifying and locating information about books. The volume of medical films and medical film sources is now so great that a card classification of them is also essential. The need has been answered by the Library of Congress with reference cards similar to those provided for books.

For the last two years the Cooperating Medical Film Agencies, which include the Medical Audio-Visual Institute, the Committee on Medical Motion Pictures of the American Medical Association and the Committee on Medical Motion Pictures of the American College of Surgeons, have been submitting material to the Library of Congress for the development of cards on nongovernmental and noncopyrighted medical films. In a like manner, the U.S. Office of Education has been providing information on government medical films, and the National Film Board of Canada has been submitting data on the Canadian films. The result has been

publication, by the Library of Congress, of 3 x 5 cards on a wide range of medical and dental scientific topics (see Figure 1).

The sample card in Figure 1 contains a summary of the film content, indicates that it is a 12-minute sound black-and-white film, the author was Khalil G. Wakim, it was produced by Indiana University in 1944, and the Dewey decimal number is 612.17. The card also reveals the volume of a medical journal where an evaluative review of the film may be found. Finally, there is a notation that the cataloging of this film was done by the Cooperating Medical Film Agencies for the Library of Congress and that the card number is FiA52-4250.

The Medical School Library: The medical library which seeks the means of extending its usefulness and efficiency as an information center will welcome the LC cards on films as a familiar tool for locating film resources within and outside the medical college. Since there are presently a maximum of 600 medical or related films classified on cards, the space and financial requirements are not great. In addition, the cards lend themselves to adaptation for any sit-

FIGURE 1. Sample of a Library of Congress Card.

The effects of metallic ions and osmotic disturbances on the heart (Motion picture) Audio-Visual Center, Indiana University, 1944.

12 min., sd., b&w, 16 mm.

Summary: Demonstrates the effects on the isolated turtle heart of calcium and potassium excess, combined calcium and potassium deficiency, and drying. For students of physiology in colleges and medical and graduate schools.

Credits: Author, Khalil G. Wakim; director, L. C. Larson; camera, F. Allan Graham; Koester C. Pool.

Review: Amer. Med. Assn. Journal, v. 144 (1950) p. 960.

1. Heart. 2. Calcium in the body. 3. Potassium in the body.
I. Wakim, Khalil Georges, 1907- II. Indiana. University. Audio-Visual Center.

Cooperating Medical
for Library of Congress

612.17

Film Agencies
(A)

Fi A 52-4250

uation. The simplest adaptation likely will be the most effective.

The LC cards are available in sets as well as single title cards. The medical librarian may find it more convenient to purchase sufficient title cards for each film and make up her cross reference sets according to her need or system. Figure 2 shows a simple, workable method in which five title cards have been adapted by overtyping subject headings according to the departments within the school. The author and producer names also have been overtyped on cards. Five cards for each film will usually be sufficient to provide a title card, subject heading cards, and author-sponsor-producer cards.

The first file contains the alphabetical listing of medical films, by title. The second file contains the subject index by departments. The film title shown should properly be filed under both subject headings: "internal medicine" and "physiology." The third file contains cards for the

authors, sponsors and producers. The three files of five cards provide an efficient source of film information for the users in a medical college. These files may be combined in one complete film dictionary file if desired.

The AV Coordinator: The audiovisual coordinator will be helpful in offering any assistance sought by the librarian in setting up the files and in acquainting and helping fellow faculty members make good use of them. In certain situations where the AV coordinator is traditionally and habitually the source of film information, it may be feasible for him to hold the master card files in the beginning. In these instances the AV coordinator will logically seek the cooperation and help of the librarian. Geographic distances may dictate that the AV coordinator hold a duplicate set.

The Individual or Department: While the library is the proper place for the master card files on medical films,



FIGURE 2. A simple LC master card file showing five title cards that have been adapted by overtyping subject headings.

the cards also are very useful for setting up individual or departmental files, particularly when the library is some distance away. All that is required is an alphabetical file of single title cards for that *subject*, as shown in Figure 3.

Procuring LC Cards: In 1952 the Library of Congress published its first volume on motion pictures, entitled "A List of Titles of Motion Pictures and Filmstrips for Which Library of Congress Cards are Available" (see Figure 4).

This volume contains titles of all motion pictures cataloged. In order to simplify the initial task of the medical school librarian and others, the Medical Audio-Visual Institute has extracted from the volume some 340 titles of medical, scientific and health films which appear to be of probable value to medical center libraries. A copy of this listing was sent to each librarian and audiovisual coordinator. The Library of Congress has now published a second volume and it is the intent of the Institute to similarly select the appropriate titles and send them to the medical schools.

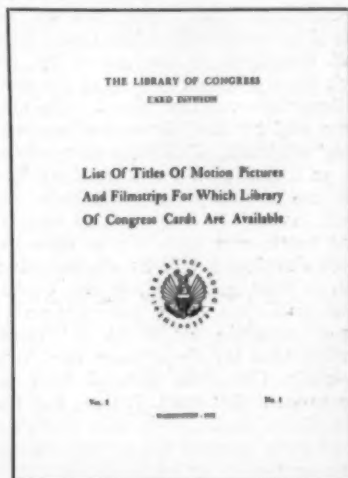
Each listing of titles contains the library order numbers for the cards. The cards may be ordered from the Card Division of the Library of Congress, Washington, D. C., on a regular form provided by the library (see Figure 5). Five cards of one title cost 20 cents when ordered by card number as shown in Figure 5.

Limitations of LC Cards: The LC cards do not attempt to evaluate the films in any way and, while they indicate who the authors and producers are, it is not always true that the authors or producers are the distributors. The Library of Congress omits evaluative judgments as a matter of policy. They expect educators to do the evaluation. Distribution data are likewise omitted because "such information on how and where to borrow, rent and purchase prints changes so rapidly that an attempt to specify such sources would be obso-



FIGURE 3 (above). An alphabetical file of single title LC cards.

FIGURE 4 (below). Cover of a Library of Congress volume of motion picture titles for which LC cards are available.



To order		FiA52-4250	
Cards for Films		L. C. CARD NUMBER	
Title:			
Producer:			
Date:			
Series:			
160		5	
Subscriber	Subscriber	Orders	No. main
Card	Index	to be held	cards wanted
SCH OF MED		(Stamp on line)	
		No. sets	
		wanted	

FIGURE 5. A LC card order form filled in to show essential information.

lete almost before they were printed."

The Medical Audio-Visual Institute is presently making plans to offset these limitations by providing 3 x 5 evaluative cards for interfiling with the LC cards. These cards will be essentially reprints of appraisals given in film reviews of the Journal of MEDICAL EDUCATION, and specialty journals which carry medical film reviews. They will provide fuller distribution data as well as a critical evaluation in a form which will supplement the LC cards.

International Card Catalog: Recognizing that "full use of the world's resources in educational films and filmstrips is hampered by the lack of an efficient system of disseminating information about available films and by the absence of evaluation" of them, UNESCO is working on an international card system. The Medical Audio-Visual Institute has been invited to help in this important work and it is likely that the cards developed will be all-inclusive, that is, containing descriptive, evaluative and availability information on three separate cards. It is almost certain that the descriptive card will maintain the same general form as the present LC card. Hence, the international card system will probably add to the present LC system rather than replace it or make it obsolete.

Summary: The need for a film card catalog openly available to all film users or prospective users is apparent. As more films become available and as faculty demands for specific medical teaching films grow, the need will be imperative. The Card Division of the Library of Congress now provides a service which may be readily adapted to the needs of the following individuals or units within the medical school:

1. The library should hold a master set of all cards on medical and related films, classified according to individual school needs.
2. The audiovisual coordinator should hold a duplicate master set where demanded by geographic separation from the college library.
3. The individual or department should hold a file of cards on films within a particular subject-matter area.

Whatever the adaptation, the benefits to the librarian, faculty members, and inquiring students indicate immediate action.—J. E. F.

Summaries of Film Reviews

These brief film reviews are intended to provide a concentrated summary of points of content, appraisal and utilization as an evalu-

ative guide for medical teachers. Each review is the distillate of evaluation from expert panels working with the Medical Audio-Visual Institute staff. Most of the material is drawn from the long, detailed Institute reviews published elsewhere.

Displacement of the Apical Impulse

16 mm., color, sl., 13 min. ("Physical Diagnosis Series, Reel 12").

This is a representative selection of views of the displaced cardiac apical impulse in 12 patients with advanced and, in two cases, rare cardiac or pulmonary pathology. Cardiac hypertrophy and dilatation of various types and etiologies, auricular fibrillation, tricuspid insufficiency, ascites, dextrocardia, pneumothorax, and lung fibrosis are the etiologies which demonstrate apical impulse variations.

This case atlas film is typical of the series, and consists of 12 collected cases of cardiac pathology which demonstrate a range of alteration of visible apical impulses. Conscientious and praiseworthy efforts are made by the authors to make all signs recognizable, but unfortunately there are many small but disturbing defects of titles, pointing, editing and shooting which tend to vitiate the intrinsic worth of the content.

As an introduction to certain physical diagnostic signs of the precordium, or as review of a range of clinical material, the film will be helpful to students of medicine. Since the pathology which underlies the physical signs is not considered, integrated utilization by an instructor is an essential. Repeated screenings will be profitable. (1951)

Audience: students of medicine, interns, residents and practitioners.

Authors and Producers: Gordon B. Myers, M.D., Fred J. Margolis, M.D., and Muir Clapper, M.D., Detroit, Mich., circa 1936-42, revised 1945.

Distribution: for purchase apply to Gordon B. Myers, M.D., Wayne University College of Medicine, Detroit, Mich.; for loan apply to Motion Picture Library, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill., Service Charge: \$1.

The Autonomic Nervous System

16 mm., color, sd., 39 min. (2 parts, called Reels 1 & 2).

Reel 1 includes the origin of pre-ganglionic fibers in the vagus, the pelvic

and the splanchnic nerves; the relative position of ganglia; and the distribution of postganglionic fibers to the thoracic, abdominal and pelvic viscera. Dissections illustrate the esophageal and cardiac plexuses. Reel 2 shows the relative positions and connections of the sympathetic ganglia, compares the dual innervation of pelvic and abdominal viscera with the single innervation of peripheral structures, and demonstrates the innervation of skeletal muscles and the relation of cholinergic and adrenergic fibers to the autonomic innervation of organs.

In this didactic illustrated lecture on film, with its concentrated and logical coverage of subject matter, the content is fundamental and generally accepted. The reactions of teachers, however, have ranged from enthusiasm to disapproval. There are a few omissions of pertinent material. A very few criticisms of content are justified, but these are easily remedied by the alert instructor. Aspects of presentation which warrant mention include the essentially static nature of the content, the problems of orientation between diagrams and the often unclear dissections, and the disturbing small details of focus, color, sound quality and dissociation of screen and voice. In total, the film is technically imperfect, but generally satisfactory within its purposes and objectives.

The quality of utilization will apparently determine in large part the degree of effectiveness of the film in its several potential applications. Some have found the film to be valuable as a review, or for use in parts. The slides and manuals will be helpful in achieving integrated instructional use.—D.S.R., 1953.

Audience: students of anatomy, physiology and pharmacology in the medical profession.

Sponsors: National Foundation for Infantile Paralysis and Duke University.

Authors and Producers: Joe E. Markee, Ph.D., and R. F. Becker, Duke University School of Medicine, 1952.

Distribution: For loan apply to National Foundation for Infantile Paralysis, 120 Broadway, New York, N. Y.; for purchase apply to Dr. Joe E. Markee, Duke University School of Medicine, Durham, N. C. **Auxiliary Materials:** 28 slides, of diagrams used in the film; instructional booklet for teachers, including the narration verbatim; illustrated student brochure.

Brilliant Illumination for Speedier Diagnosis

ARC-VUE OTOSCOPE

This fine instrument provides the brightly lighted field so important to fast, easy diagnosis and so vital in surgery. In addition, the swinging arc of the speculum mount is so devised as to give a 36% larger operative field than previous instruments. Head includes tongue depressor holder and 4 specula, including nasal. In attractive, durable case.



HAND DIAGNOSTIC SET

Designed for maximum speed and ease of use. Includes Arc-Vue Otoloscope with 4 specula, and May Ophthalmoscope, battery handle and extra lamp, in durable carrying case.



BAUSCH & LOMB

OPTICAL COMPANY



ROCHESTER 2, N. Y.

Hand Diagnostic

INSTRUMENTS

Book Reviews

Trends in Modern Medical Education

V. M. Coppleson, honorary director of postgraduate medical studies, University of Sydney. Australasian Medical Publishing Co., Ltd., Seamer and Arundel Streets, Glebe, Australia, 1952. 104 pp.

In 1951 Dr. Coppleson made an extended visitation of universities, medical schools, hospitals and other organizations offering graduate and postgraduate work in medicine in the United States, Canada, England and Scotland. Part I of this volume reports on what he saw and learned in the visitation. Part II "discusses the development of graduate and postgraduate medical education in the University of Sydney and Australia generally in the light of the many changes taking place abroad."

Included in Part I are chapters on the following topics: the intern year, the training of general practitioners, graduate medical education and the training of specialists, postgraduate medical education, regional plans, postgraduate hospitals and postgraduate medical schools, research, the foundations, undergraduate medical education, and the development of graduate and postgraduate medical education.

Of particular interest is the author's comparison of the "resident" system of specialty training in the United States with the "registrar" system in the United Kingdom. His efforts to explain the medical degrees and diplomas of the United Kingdom are earnest and laudable, but leave the reader somewhat confused.

The most important change Dr. Coppleson recommends in Australian medical education is "the acceptance by the universities of the principle of the division of medical education into an undergraduate educational phase and a postgraduate vocational phase with acceptance of responsibility for both."

Elementary Statistics with Applications in Medicine

Frederick E. Croxton, Ph.D., professor of statistics, Columbia University. Prentice-Hall, Inc., New York, 1953. 376 pp. with index. \$7.50.

Dr. Croxton has made an extract of Croxton and Cowden's "Applied General Statistics," using practically the same general material but substituting

illustrations and examples that have a medical context. It is not very well adapted to meet the needs of the physician who wishes to have sufficient statistical knowledge to evaluate the scientific articles that he may read. It also does not suit a young medical scientist who is planning experiments and wishes to set them up properly so that the results will have statistical validity.

The chapter on tabular and graphic presentation is excellent. The appendix contains many useful tables, but they are not so comprehensive as those in "Applied General Statistics."

If asked by a medical student for a frank opinion of the value of this book, the reviewer would be compelled to say that it would be more advantageous to buy the text from which this book is compiled. The master text is much more complete and comprehensive, and it has all the advantages of broader treatment and more complete tabulation.

Cancer Learning in the Medical School

A report of four years' investigation of how and what medical students learn about cancer. By Howard R. Bierman, M.D., associate clinical professor of oncology; Leonard W. Townner Jr., Ph.D., research associate; David W. Galloway, M.A., statistician; James N. McClelland, Ph.D., formerly instructor (medical education). The University of California Press, Berkeley, California, 1952. 87 pp.

This report summarizes the work of a group at the University of California School of Medicine in San Francisco, which, under the leadership of Dr. Howard Bierman, undertook the assessment of cancer instruction in the curriculum. The first part of the report describes the construction of the text and its validity and reliability. The second part discusses the knowledge medical students have of cancer as revealed by the text, and certain relationships between teaching methods and scores on the cancer examination. The summary points out that the average student learns more about cancer in his sophomore year than he does at any other time in his undergraduate medical education, and that he knows more about the treatment of cancer than he does about its characteristics and diagnosis.

Clinical Obstetrics

Members of the staff of the Pennsylvania Hospital. Edited by **Clifford B. Lull**, M.D., late director, division of obstetrics and gynecology, and **Robert A. Kimbrough**, M.D., director of the division of obstetrics and gynecology. J. B. Lippincott Company, Philadelphia, London, Montreal, 1953. 392 illustrations and 8 color plates. 732 pp. with index. \$10.

Well-organized subject material makes this volume a splendid reference. The practitioner will find it a worthy substitute for consultation because of the practical grouping and clear presentation of the various obstetrical topics.

The authors have presented their material simply, and while indicating their personal opinions, they do not give the impression of speaking *ex cathedra*.

Especially instructive and interesting are the chapters on nutrition, chemistry, toxemias, obstetric roentgenology and maternal mortality. These items which are too often considered scientific and statistical matters, are reduced to such a practical basis as to render them appealing to the practitioner and reader.

Numerous excellent illustrations complement the written matter and add clarity to the references.

A Study in Manic-Depressive Psychosis

Acta Psychiatrica et Neurologica Scandinavica, Supplementum 79. By **Ake Stenstedt**. Ejnar Munksgaard, Copenhagen, 1952. 111 pp.

Although Scandinavian psychiatry for the most part has remained independent of the analytic movement so prominent in the United States, research into descriptive psychopathology has continued to move forward. Unfortunately, merely elaborating the Kraepelinian point of view without connecting it to dynamic theory as evolved by Freud is as incomplete as emphasizing the genetic classification of animals and plants without the Darwinian theory of evolution. The two concepts work mutually, not antagonistically.

This monograph reports a study carried on at the Psychiatric Clinic of Karolinska Institutet, Stockholm, Sweden, from 1949 to 1952. It examines and studies manic-depressive patients and their close relatives in order to elaborate social, environmental, hereditary and clinical influences. The experimental design is scientifically conceived and the results subjected to statistical analysis.

Many data are presented in a lucid style. There are four appendices with brief case histories, tables and charts. The list of references is fairly complete for the nonanalytic European literature on manic-depressive psychosis.

It is unfortunate that no dynamic discussion is included in the study. This could have been done easily, particularly as one conclusion reached is that the frequency of suicide among brothers and mothers of patients is higher than is found in the general population. A discussion of intra-familial relationships might have shown why this occurs. It is important to evaluate and carefully distinguish what appears as purely genetic factors on the surface, but may be early environmental conditioning in a possibly susceptible individual.

Studies such as these are invaluable, especially when they include intensive case studies as well as large groups of patients. This work, because of its specialized focus, is recommended for students of psychiatry.

Use of Antibiotics in Tropical Diseases

Annals of the New York Academy of Sciences, Vol. 55, Art. 6. Edited by **Roy Waldo Miner**. Illustrated. 318 pp. \$4.

This volume is a compilation of 32 separate articles on the use of antibiotics, dealing primarily with their therapeutic effects on the common and rarer tropical diseases. It represents the most authoritative statements by various authors who have devoted considerable time to the study of various infections including virus, rickettsial, protozoan, fungus and helminth; there is an emphasis on therapy.

Notable advances have been made in this field during the past two decades and the latest findings have been included. The book is an extremely useful series of articles for anyone interested in this field.

The Principal Nervous Pathways, 4th edition

Andrew Theodore Rasmussen, Ph.D., professor of neurology, University of Minnesota Medical School. The Macmillan Company, New York, 1952. Illustrated with drawings. 73 pp. with index. \$4.50.

Dr. Rasmussen has revised his valuable neurological charts and schemas in the interest of presenting the latest accurate information. The explanatory notes continue to be concise and thor-

Books and Pamphlets Received

ough enough to enhance the usefulness of the figures.

The charts are not so detailed as to be confusing, yet are sufficiently labeled to be of value. It is felt that the use of color would further improve them as visual aids. The index is carefully prepared. However, no bibliography or list of references is included. While the charts are designed to increase the efficiency of medical teaching and accomplish their purpose, the student should also have immediately available additional sources which he can use for more specific information.

A dynamic and functional view of neuroanatomy is presented throughout. This is to be commended, not only as an aid to the study of neuroanatomy, but for its subsequent correlation with the understanding of neurophysiological processes, clinical neurology and neurosurgery.

Dr. Rasmussen has summarized and simplified much information in his book. As he says, "with our high pressure curriculum, everything must be done to facilitate a mastery of those facts which will be used most directly in the immediate future." The use of labor-saving devices in medicine is not to be condemned, but their limitations must be appreciated.

Office Psychiatry

Louis G. Moench, M.D., assistant clinical professor of medicine and psychiatry, University of Utah School of Medicine. The Year Book Publishers, Inc., Chicago, 1952. Illustrated with drawings. 310 pp. with index. \$6.

The author states the purpose of this volume in cogent terms in the preface, "It is the obligation of psychiatry to make its knowledge available to the physician, clearly, simply, usefully, avoiding the special jargon and the obscure concepts which have alienated many medical students and physicians, depriving them and their patients of this valuable understanding."

Dr. Moench describes succinctly the various diagnostic categories, development and growth of the personality, adolescence and problems related to this area. Discussions are lucid and embellished with illustrations to reinforce the point the writer is making. The sections devoted to Psychosomatic Medicine and the Interview are excellent. Two chapters are devoted to therapy, of-

fering the reader a view of the tools of the psychiatrist.

The only criticism that can be made is that the author attempted to cover too much material. In the author's attempts to simplify, problems inherent in the disorders are masked and one feels that "all the problems have been solved."

This book is recommended for those persons who are interested in an introduction to psychiatry.

Oral Anatomy, 2nd edition

Harry Sicher, M.D., D.Sc., professor of anatomy and histology, Loyola University School of Dentistry, Chicago College of Dental Surgery. The C. V. Mosby Company, St. Louis, 1952. 310 text illustrations, including 24 in color. 529 pp. with index. \$13.50.

In this revised edition of his work, the author has incorporated a few new facts and concepts. The chapters on the temporomandibular articulation have been expanded, giving a more comprehensive understanding of the anatomy and function of this complicated joint.

The author has very aptly removed anatomy from a study of the morbid specimen and has approached it from the physiological standpoint as a functional mechanism. By dividing the book into two parts, he has produced a text which may accompany the student through his clinical years and serve as a basic introduction to many practical problems. Through this means, students may become aware of the applicability of theory to practice.

Since this work is largely on descriptive anatomy, it is perhaps well that the illustrations are mostly confined to drawings of specimens and do not depend on half-tone photographs.

As in the previous edition, approximately 100 pages are devoted to regional and applied anatomy. Though an excellent adjunct to the teaching of oral anatomy, this book should not supplant the standard textbooks on dental or human anatomy.

Books and Pamphlets Received

(As space permits, those with the greatest interest to our readers will be reviewed)

The Basis of Clinical Neurology, 3rd edition

Samuel Brock, M.D., professor of neurology, College of Medicine, New York University. The Williams & Wilkins Co., Baltimore, 1953. 510 pp. with index. Illustrated. \$7.

Herbut—Gynecological and Obstetrical Pathology

By **PETER A. HERBUT, M.D.**

Professor of Pathology, Jefferson Medical College and Director of Clinical Laboratories,
Jefferson Medical College Hospital, Philadelphia, Pa.

NEW. Pathological lesions of the female generative tract are described in detail in this new book. Diseases are presented from a regional point of view with the vulva, vagina, uterine cervix, uterus, fallopian tubes, ovaries and placenta discussed fully in separate chapters. Proper attention is given to diagnosis and treatment.

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By **LOYAL DAVIS, M.S., M.D., Ph.D., D.Sc., (Hon.)**

Professor of Surgery and Chairman of the Division of Surgery, Northwestern
University Medical School, Chicago, Illinois

NEW 4th EDITION. Students favor this book because of the stimulating, well-grounded introduction it provides to the study of neurological surgery. Fundamentals are presented clearly. Emphasis is on diagnosis, symptomatology and pathology, rather than on actual technic. The more than adequate discussions of treatment stress indications and end results. For this edition many important additions and rearrangements have been made throughout. The 354 illustrations have been carefully selected to supplement the text.

**New 4th Edition. 544 Pages. 354 Illustrations on 186 Figures
and 5 Plates, 4 in Color. \$8.50**

Goldberger—Unipolar Lead Electrocardiography and Vectorcardiography

By **EMANUEL GOLDBERGER, M.D., F.A.C.P.**

Associate Attending Physician, Montefiore Hospital, New York; Cardiologist and Attending
Physician, Lincoln Hospital, New York; Lecturer in Medicine, Columbia University

NEW 3rd EDITION. Unlike most texts on electrocardiography, Dr. Goldberger describes each abnormality of the heart in terms of standard leads, augmented unipolar extremity *aV* leads, unipolar precordial *V* leads and the cardiac arrhythmias. All are explained in terms of simple fundamental physiological principles and basic unipolar lead patterns. This edition contains an important 12-chapter section on vectorcardiography, with fundamental principles for its use.

New 3rd Edition. 601 Pages. 312 Illustrations. \$10.00

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Current Therapy, 1953

Edited by **Howard F. Conn, M.D. W. B. Saunders Company, Philadelphia, 1953. 836 pp. with index. \$11.**

The Riddle of Cancer (revised)

Charles Oberling, M.D., translated from the French by **William H. Woglom, M.D. Yale University Press, New Haven, 1952. 238 pp. with index. \$5.**

Modern Treatment

Edited by **Austin Smith, M.D.**, editor of the "Journal of the American Medical Association," and **Paul L. Wermer, M.D.**, secretary, Committee on Research, American Medical Association. 53 authors. **Paul B. Hoeber, Inc., New York, 1953. 1146 pp. with index. \$20.**

Encyclopedia of Aberrations

Edited by **Edward Podolsky, M.D.**, State University of New York Medical College, Philosophical Library, New York, 1953. 550 pp. \$10.

Contributions Toward Medical Psychology, Vols. I & II

Edited by **Arthur Weider, Ph.D.**, associate professor of medical psychology, department of psychiatry and mental hygiene, University of Louisville School of Medicine. The Ronald Press Company, New York, 1953. 885 pp. with index. \$12.

A Short Practice of Surgery, 9th edition

Hamilton Bailey, F.R.C.S. (Eng.), F.A.C.S., F.I.C.S., F.R.S.E., emeritus surgeon, Royal Northern Hospital, London; **H. J. McNeill Love, M.S. (Lond.), F.R.C.S. (Eng.), F.A.C.S., F.I.C.S.**, surgeon, Royal Northern, Mildmay Mission and Metropolitan Hospitals. The Williams & Wilkins Company, Baltimore, 1953. 1234 illustrations. 1254 pp. with index. \$12.50.

A Course in Practical Biochemistry, 6th edition

Cameron and White text revised by **Frank B. White, A.R.T.C., Ph.D. (Edin.), F.R.I.C.**, professor of biochemistry, faculty of medicine, University of Manitoba; **George E. Delory, M.Sc., Ph.D. (Lond.)**, associate professor of biochemistry, faculty of medicine, University of Manitoba. J. & A. Churchill Ltd., London, 1952. Illustrated. 222 pp. with index. \$2.45.

Solitude and Privacy

Paul Halmos, Doctor Juris (Budapest), B.A., Ph.D. (London). Philosophical Library, New York, 1953. 181 pp. with index. \$4.75.

Diagnostic Tests in Neurology

Robert Wartenberg, M.D. The Year Book Publishers, Inc., Chicago, 1953. Illustrated. 228 pp. with index. \$4.50.

A Text-Book of Pharmacognosy, 6th edition

George Edward Trease, B. Pharm., Ph.D., F.R.I.C., F.L.S., director of pharmaceutical studies and head of the department of pharmacy, University of Nottingham. Bal-

here, Tindall and Cox, London, 1952. American distributors: Williams & Wilkins Co., Baltimore. Illustrated. 821 pp. with index. \$8.

Textbook of Public Health, 13th edition

W. M. Fraser (formerly by Hope and Stallybrass), O.B.E., M.D., Ch.B., M.Sc., D.P.H., medical officer of health, city and port of Liverpool and professor of public health, University of Liverpool. E. & S. Livingstone Ltd., Edinburgh and London, 1953. American distributors: Williams & Wilkins Co., Baltimore. Illustrated. 663 pp. \$8.50.

Annual Review of Physiology, Vol. 15, 1953

Victor E. Hall, editor, University of California School of Medicine (L.A.); associate editors **Jefferson M. Crismon** and **Arthur C. Giese** (both of Stanford). Annual Reviews, Inc., Stanford, 1953. 558 pp. \$6.

Faculty Salaries in Land-Grant Colleges and State Universities, 1951-52. Maude Farr, survey statistician, Federal Security Agency. Sold by Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 17 pp. 15 cents.

The Franklin Institute from 1824 to 1949. Thomas Coulson, director of museum research. The Franklin Institute, Philadelphia. 48 pp.

Malaria Terminology. World Health Organization Monograph Series, No. 13. Sir Gordon Coveil, C.I.E., M.D., advisor on malaria, Ministry of Health; **Paul F. Russell, M.D., M.P.H.**, division of medicine and public health, Rockefeller Foundation; **N. H. Swellengrebel, D.Sc.**, professor of parasitology, University of Amsterdam, World Health Organization, 1953. May be obtained from International Documents Service, Columbia University Press, New York 27. 82 pp. \$1.

Proceedings of the Annual Meeting, Council for High Blood Pressure Research. Published by American Heart Association, 44 East 23rd St., New York 10, 1952. Illustrated. 113 pp. \$1.75.

Chronicle of the World Health Organization, Vol. 7, No. 2, February 1953. World Health Organization. May be obtained from International Documents Service, Columbia University Press, New York 27. Illustrated. 60 pp. 20 cents.

Democracy Begins in the Home. Ernest Osborne, professor of education at Teachers College, Columbia University. Public Affairs Pamphlet No. 192. 28 pp. 35 cents.

Guide for National Studies of Nursing Resources. Margaret G. Arnstein, R.N., M.P.H., chief, division of nursing resources, Public Health Service. Bulletin of the World Health Organization, Supplement 7. May be obtained from International Documents Service, Columbia University Press, New York 27. 36 pp. 75 cents.

Epidemiology and Control of Endemic Syphilis. E. I. Grin, M.D., director, Central Dispensary for Skin and Venereal Diseases, Sarajevo, Yugoslavia. World Health Organization Monograph Series No. 11. Illustrated. 93 pp. May be obtained from International Documents Service, Columbia University Press, New York 27. \$1.

Abstracts and Excerpts

Sheinin, J. J. **Medical Education for General Practice**, "Illinois Medical Journal," January 1953: 41-44.

The suggestion that different schools should be provided for prospective general practitioners, surgeons and other specialists is rejected. There is evidence at the present time that interest in general practice is on the increase. Undergraduate medical schools have the responsibility to supply the concepts, stimulate the interests, give integration and achieve the training for social responsibility on which further development may be built. Cautious use of preceptors in training is urged, because it is not always possible to secure suitable men. The setting up of a special board for certification of "general specialists" in the field of general practice is recommended. Coordinated attention to continuation courses for the general practitioner is recommended.

Collings, Joseph and Clark, Donald M. **General Practice, Today and Tomorrow**, "The New England Journal of Medicine," Vol. 248, No. 5: 183-194, January 29, 1953.

The section on page 192-194 devoted to medical education in relation to general practice suggests that practical essentials which would promote the general level of medical care in the community are being neglected for specialist training and hospital practice. Short "orientation" courses are inadequate and artificial. The huge clinical and teaching resources outside teaching hospitals should be utilized in the training of general practitioners. "Continuous" education is recommended for graduates, with emphasis on constant interchange of experiences with other doctors, difficult today for most men in individual practice. Higher standards and increasing requirements of postgraduate study are recommended for the general practitioner. However, educational reform is secondary to the requirements for social, economic and organizational reform in the field of general practice.

Appel, Kenneth E.; Mitchell, John McK. and Lhamon, William T. **Psychiatric Values in a New Method of Medical Education**, "The Diplomat," Vol. 24, No. 5: 89-94, November-December 1952.

The family health advisor service at the School of Medicine of the University of Pennsylvania serves to impress the student with the importance of emo-

tional relationships in the health and welfare of the patient. Students are assigned a family to which they serve as health advisor through their four years of medical training. It has been found that at least half of the questions raised by first-year students have referred to emotional problems in the assigned families. The student thus is introduced to the field of psychiatry, not through a study of mental disease, but in the natural setting of the home with its problems. The course serves to integrate medicine, public health and social work with psychiatry.

Parran, Thomas, **The Doctor of the Future**, "The Pennsylvania Medical Journal," in two parts, January 1953: 28-30; February 1953: 103-106.

The physician of the future will be molded by extrinsic factors including (1) greater demand for medical services; (2) the changing nature of disease problems; (3) the widening horizon of medical knowledge, plus the inclusion of the skills of related health personnel in diagnosis and treatment of disease; (4) an emphasis upon prevention and rehabilitation; (5) change in the techniques of medical practice.

To keep pace with changing medical needs, medical education is undergoing evolution. Common objectives of most experimental programs are designed to correct defects in current medical teaching such as: "too much preoccupation with disease entities; lack of interest in environmental factors in health and disease; too much concentration upon the patient in a hospital bed presenting a rare and baffling diagnostic problem; too little concern with training the doctor as a member of a coordinated health team; indifference to the study of health and the prevention of disease; lack of attention to rehabilitation as a medical responsibility; the 'monistic' rather than the 'multi-dimensional' approach of many teachers, whereby oversimplified categories of 'cause and effect' exclude the social factors of disease."

Gray, J. P. **Perspectives in Medicine**, "Journal of the Student American Medical Association," February 1953: 55-56.

A plea that the senior medical student evaluate his medical training and consider carefully his future career and his place in society.

Packer, Henry and Sanford, Conley H. **The Family Care Program of the University of Tennessee College of Medicine.** "The Journal of the Tennessee State Medical Association." February 1953: 49-51.

The family care program at Tennessee has as its objective providing students with firsthand experience in: (1) the family doctor relationship, as experienced under the supervision of preceptors engaged in general practice; (2) diagnosis and treatment of illness in the home as well as the hospital; (3) observation of minor illnesses and beginning stages of serious illness; (4) observation of the family as a unit in its own environment; (5) comprehensive care of the family for a one-year period; (6) use of community resources needed by the family. The student participates in the plan during his last four quarters in medical school.

Bills, Robert E., **An Investigation of Student Centered Teaching.** "Journal of Educational Research." Vol. XLVI, No. 4: 313-319. December 1952.

A study was made of two matched classes in a general psychology course. One class was taught by lecture and the other by a student-centered method. Results of tests revealed no significant difference in subject matter learned in each class. However, anonymous evaluations done by students in both classes showed that those taught by the student-centered method believed the course was of personal value while the other class was of the opinion that it was not.

"The West Virginia Medical Journal." **Reorganizing Medical Curriculum** (Ed.) February 1953: 63-64.

An editorial account of curriculum experiments, especially those at Western Reserve. The suggestion is made that such reorganization of the curriculum will increase the cost of medical education. The practicality of establishing "multidiscipline" laboratories at West Virginia is questioned since the laboratories serve not only medical but also dental, pharmacy, nursing and other students.

"The Journal of the Tennessee State Medical Association." **Shades of Abraham Flexner** (Ed.) February 1953: 68-70.

An editorial warning regarding the National Commission on Accrediting. It is felt that if the accreditation of medical education is removed from the hands of physicians, leaving them only in an "advisory" capacity, medicine will suffer. Institution-wide accreditation could re-

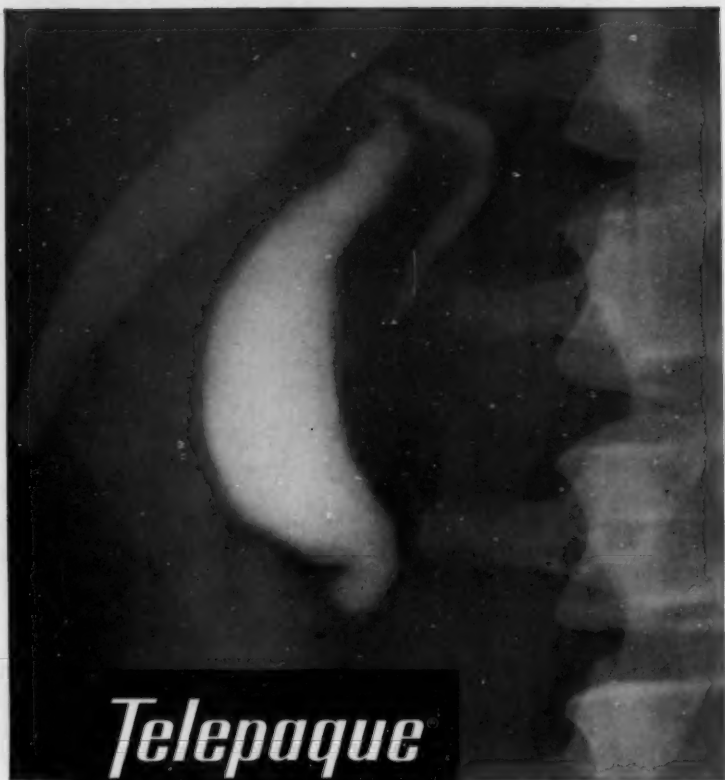
sult in balancing a strong school of law against a weak school of medicine, for example, without consideration for the higher financial needs of the medical school.

Murphy, Franklin D. **The Modern Medical School: Its Obligation.** "The Pennsylvania Medical Journal." December 1952: 1199-1200. An excerpt, originally published in the October 1952 issue of the "Federation Bulletin."

"There is a basic pedagogic principle, and this transcends all disciplines in all fields, that if education is to have importance . . . it must be rooted in the contemporary realities of society . . . Too often our medical school curricula are geared to the social and scientific situation of 50 years ago rather than to these pressing realities of 1952. . . Therefore, the first function of a modern medical school is the whole educational spectrum—a consideration of the young man before he gets to medical school; the way he is handled during medical school; a concern about his internship and residency experience; and then a constant concern to bring into focus what I have come to call the forty-year educational experience, recognizing that the medical school picks up the young man as he leaves college and does not let him go until he is ready to lay down his scalpel and retire. . ."

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- Johnstone, Rutherford T., **This Age of Tension: Environment and Human Action.** "Northwest Medicine." March 1953: 195-200.
- "The Journal of the Oklahoma State Medical Association." **Hospital and Medical School Costs** (Ed.) February 1953: 25-26.
- "Journal of the Student American Medical Association." **An Evaluation of Internships.** March 1953: 30-32.
- De Kiewiet, Cornelis W., **Education for Survival.** "The Scientific Monthly." February 1953: 57-62.
- McComb, Stanley J., **Photography of Patients: Suggestions for Posing and Lighting.** "GP." Vol. VII, No. 3:90-94, March 1953.
- Muether, R. O., **Professional Relation Between Physicians and Psychologists.** "Missouri Medicine." March 1953: 205-206.
- Williamson, Paul, **The Doctor of Tomorrow.** "GP." Vol. VII, No. 3:101-102, March 1953.
- Weiskotten, Herman G., **The Responsibilities of Medicine in the Fields of Education and Service.** "The Diplomat." Vol. 25, No. 1:1-6. January-February 1953.



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• Applications are invited for the post of assistant or associate professor of **BIOCHEMISTRY** at the University of Alberta, duties to commence July 1, 1953. Further information may be obtained from Dr. J. W. Scott, dean of medicine, University of Alberta, Edmonton, Canada.

• A one-year salaried training position will be available in the consultation **CLINIC FOR EPILEPSY**, University of Illinois College of Medicine, beginning July 1, 1953. Address application or requests for further information to: Dr. Frederic A. Gibbs, 912 S. Wood St., Chicago 12.

• **PHYSIOLOGIST**, Ph.D. or M.D. Desired for permanent position in physiology department. Preference given to those with interest in cardiovascular or neurophysiology. Teaching program of 16 weeks duration; remainder of year available for research. Further information may be obtained from: Dr. Harold C. Wiggers, professor of physiology of the College of Medicine, Albany Medical College, Union University, Albany, N. Y.

• The department of **MICROBIOLOGY** and **IMMUNOLOGY** of a medical school in the midwest is scheduled to move into new and enlarged quarters toward the end of 1953. The staff is to be increased by two full-time members. Those interested and experienced in teaching medical students are requested to give information concerning their personal history and qualifications and the desired rank and salary. Address: V-7.

• The departments of **BIOLOGY**, **ANATOMY**, **BIOCHEMISTRY** and **PHARMACOLOGY** have vacancies for four professors at the Royal College of Medicine in Baghdad. The salaries are open. For further information address requests directly to: Glenn S. Usher, M.D., chief, Health and Sanitation Division, TCA/Iraq, c/o American Embassy, Baghdad, Iraq.

• Applications are invited for positions of assistant or associate professor of **MICROBIOLOGY** and **CROSS ANATOMY**, duties to commence September 1, 1953. Further information may be obtained from Dr. R. L. deC. H. Saunders, anatomy department, Dalhousie University, Halifax, N. S., Can.

Personnel Available

• **PHYSIOLOGIST**—Ph.D. age 36. Active researcher and teacher at university level, desires teaching-research position in medical

school. Fine scholastic record, publications, National Research Council fellow, five years' teaching experience human, general physiology. Position with permanence desired, but will consider appointment permitting working for M.D. degree. Available after June 1953. Address: A-22.

• Ph. D. in all **BASIC SCIENCES**; man. Assistant professor at present. Training in all basic sciences. Teaching experience in anatomy (gross and microscopic), physiology and pathology (medical and clinical). Minimum salary stipulated. Address: A-31.

• **SURGEON**: Interested in teaching and research; Certified by the American Board of Surgery; Fellow, American College of Surgeons; two years teaching experience in clinical surgery; married; category 4 service U.S. Navy. Full-time work preferred. Address: A-32.

• **SURGEON**: 32, interested in career in academic surgery. Anticipates completion of American Board of Surgery certification March 1953; application accepted for fellowship in the American College of Surgeons for 1953. Currently holds staff appointment in department of surgery of a medical school. Wife and two children. Has training in basic research and anxious for opportunities in this direction. Full-time position preferred. Address: A-33.

• **ANATOMIST**: Ph.D., assistant professor, male, married. Four years teaching experience in medical school gross anatomy. Research and interest in neuroanatomy. Available August 1953. Address: A-34.

• **PATHOLOGIST**: M.D., man 41, married. Unusually fine and varied experience; teaching, research, hospital laboratory, administration, planning and construction; particularly competent in pathologic anatomy; at present associate professor and director of laboratories; seeks academic and/or hospital appointment. Address: A-35.

• **NEUROANATOMIST**: man, 43, married, Ph.D., member American Association of Anatomists. Experience: seven years teaching neuroanatomy, four years teaching gross anatomy; basic neurological research; administration; membership on several medical school administrative committees; original training under highly distinguished neuroanatomists. Publications. Member of scientific and scholastic societies. Noteworthy references. Experience includes reorganization of premedical program in large college with salutary results. Desires medical school position where interests in teaching, research and administration can be fulfilled. Available July 1953. Address: A-36.

• **ANATOMIST**: Ph.D., man, 40. Desires teaching position in anatomy (gross or microscopic). Teaching experience in histology, embryology and gross anatomy in dental and medical schools. Publications. Excellent refer-



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1. Grimson, K. S.; Orgain, E. S.; Rowe, C. R., and Sieber, H. A.: J.A.M.A. 149:215 (May 17) 1952.
2. Paton, W. D. M., and Zaimis, E. J.: Pharm. Reviews 4:219 (Sept.) 1952.

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• **BACTERIOLOGIST; PARASITOLOGIST; PUBLIC HEALTH INSTRUCTOR:** Ph.D., man. Desires teaching position in bacteriology, parasitology or preventive medicine. Teaching experience in these subjects in liberal arts and professional schools. Now employed but may be available on short notice. Publications. Excellent references. Address: A-38.

• **INTERNIST:** 35 years. Certified. Would like full-time teaching position, associate professor of medicine or higher in medical school where there is an opportunity for organized research. Interested in metabolism and isotope research. Has been connected with teaching university since getting out of service. Associate in medicine 1951. Numerous publications. Address: A-39.

• **OPHTHALMOLOGIST:** Age 33, married, priority 4, certified, advanced degree in ophthalmology. Engaged now in medical school teaching, research and private practice. Publications include article, monograph and review. Trained in major American institutions. Desires full-time opportunity to combine teaching, research and clinical work. Address: A-40.

• **BIOCHEMIST:** Ph.D., age 26, married. Four years' research on the biochemistry of human arterial smooth muscle, contraction and tonus mechanisms in relation to hypertension and arteriosclerosis. Desires opportunity to continue biochemical research on the arterial wall under cardiovascular investigator, with possibility of study toward M.D. degree. Available October 1953 or June 1954. Address: A-41.

• **BIOCHEMIST:** Man, 32, family, Protestant. B.S. chemistry; M.S., Ph.D., biochemistry. Minors: physiology, microbiology, organic chemistry. Societies. Publications; book in progress. 3 years experience undergraduate, 4 years graduate assistant, 1 year industrial chemist, 3 years army medical technologist, 1 year cancer research. Currently 2 years assistant professor biochemistry in medical school. Research interests: carbohydrates, nucleic acids, analytical biochemistry, clinical chemistry. Desires change for professional, financial advancement. Available 2-3 months after job agreement is concluded. Address: A-42.

• **BIOCHEMIST or PHYSIOLOGIST:** Ph.D., age 31. Active researcher and teacher at university medical school for five years. Fine scholastic record, public health senior research fellow, many publications. Interested in position allowing work for M.D. degree. Address: A-43.

• **ANATOMIST:** 32, married, children. National Cancer Institute fellow (1 year); experience in all branches of anatomy. Publications on request. Interested in research as well as teaching. Excellent references. Available after July 1, 1953. Address: A-44.

• **PHARMACOLOGIST:** M.D., Ph.D. Assistant professor, medical school, age 36, married. Eight years experience teaching pharmacology to medical, dental and pharmacy students. Research experience with systemic anti-infectives and autonomic drugs. Publications. Desires teaching and/or research position. References. Address: A-45.

• **PHARMACOLOGIST-BIOCHEMIST:** Ph.D. 1953. Age 28, married, veteran. Phi Beta Kappa, Sigma Xi. Diversified background, strong chemical training. Some teaching experience. Desires academic position. Address: A-46.

• **BIOCHEMIST-PHYSIOLOGIST:** Man, 36, married, Ph.D. Now assistant professor at medical college. Enthusiastic teacher with several years of research experience. Desires academic position at medical, dental or pharmacy school or liberal arts college where good teaching is considered important. Interested in graduate training program and fundamental research, if available. Administrative duties are very welcome. Publications. Location immaterial. Rank and salary open. Address: A-47.

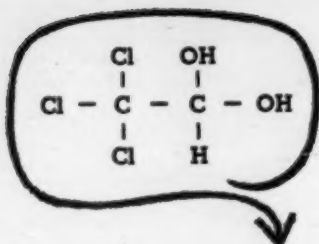
• **MAMMALIAN and GENERAL PHYSIOLOGIST:** A.B., Ph.D., man 31, married. Will graduate June. Six years teaching experience in dental, medical, graduate and undergraduate courses, laboratories and lectures. Publications. Member of scientific societies. Wide and varied interests. Four years in medical department of army; Rank, 1st Lt., inactive reserve. Prefer midwestern appointment. Available after June 1953. Address: A-48.

• **TEACHING FELLOWSHIP — OTOLARYNGOLOGY:** special interest in problems of tumors in region of head and neck, particularly those related to cancer of mouth, larynx and pharynx. Man, single, 37, M.D. (surgeon) University of Cordoba. Head of clinic and assistant chief, department of otolaryngology, Hospital Espanol, Cordoba, 3 years; intern and resident, U.S., 1949-1951. Member scientific societies. Excellent references. Argentine citizen; good command of English. Address: A-49.

• **TEACHING FELLOWSHIP — GYNECOLOGY:** Man, 41, married, M.D., University of Cordoba. Supervision of gynecological patients 1939 to present, 2 years teaching in medical school

To aid in solution of the problem of faculty vacancies, MEDICAL EDUCATION will list persons and positions available, as a free service. The school, department or person may have the option of being identified in these columns or of being assigned a key number for each position listed. Mail addressed to key numbers will be forwarded to the person or department listing the request.

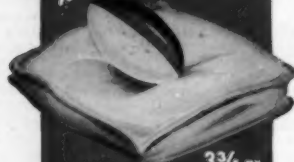
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1. Huron, R. Y.: An Integrated Practice of Medicine (1935)
2. Barkus, H. R. et al.: A Manual of Practical Pharmacology (1944)
3. Saunders, L., and Gilman, A.: The Pharmacological Basis of Therapeutics (1941), 2nd printing, 1941.
4. Gilman, A.: A Manual of Pharmacology, 7th ed. (1948), and Clinical Drugs, 14th ed. (1947)

Personnel Available

and hospital. Member scientific societies. Publications. Argentine citizen; good command of English. Address: A-50.

• **YOUNG SURGEON**—Certified general and thoracic boards. University trained. Major interest thoracic and cardiac surgery. Experienced in applied cardio-pulmonary physiology. Some publications. References. Wishes full-time teaching appointment. Address: A-51.

• **PHARMACOLOGIST - ADMINISTRATOR**: Man, 31 married. Ph. D. Desires academic position, preferably with teaching duties. Four years industrial experience, and five years academic experience. Interest in toxicology and neuropharmacology, and graduate student training. Highest references, publications. Address: A-52.

• **RADIOBIOLOGIST - HISTOLOGIST - ZOOLOGIST**: Man, 49, married, Sc.D. Experience mainly in radiobiology and histology. Prefers position in research institution or teaching and research in histology or zoology department with radiobiological research opportunities, or research appointment in department of roentgenology or radiobiology. Address: A-53.

• **PARASITOLOGIST**: D.Sc., man. Internationally known—widely travelled. Guggenheim fellow. Effective teacher on undergraduate level in histology, in medical school and postgraduate clinical level. Numerous research papers and monographs in taxonomy of parasites, surveys, chemotherapy and toxicology. Gets on well with colleagues. Desires position in fall. Salary secondary to time for research. Liberal arts college will be considered. Address: A-54.

• **CLINICAL BIOCHEMIST**: Certified internist, 35. Interested in hospital chemical laboratory, teaching, parenteral fluid therapy, metabolic disorders, clinical investigation. Address: A-55.

• **ADMINISTRATOR-EDUCATOR**: Man, 38; B.S., M.A., Ed.D.; fellow, national science-medical societies; 17 years experience administrator national public health-medical organizations; university professional school teaching; 5 years intensive experience medical school organization management including affiliation, curriculum, fellowship and research programs, fund raising, physical development, purchasing, student selection; author six books, numerous papers. Seeks top-level administrative post medical school, foundation, east. Address: A-55.

• Position desired in medical school or university hospital by woman with M.S. in bacteriology. Three years experience teaching bacteriology, serology, parasitology and clinical microscopy to medical students and medical laboratory technicians. Excellent experience in writing and statistical interpretations in medical fields. Formerly in charge of university hospital bacteriology and serology department. Address: A-56.

• **INTERNIST**: 35. Certified. Desires full-time academic appointment with research. Currently assistant professor of medicine, director of basic research laboratory (biochemistry and physiology), supported by several grant foundations. Active in clinical teaching. Research and clinical experience at several lead-

ing institutions, including fellowship abroad. Priority IV. More than 40 publications. Address: A-57.

• **RADIOLOGIST**: 37. Assistant professor. Male. Married. 4 years teaching experience. Available on short notice for full-time academic position. Address: A-58.

• **BIOCHEMIST**: Ph.D., 1953. M.S. Analytical chemistry. Desires academic and/or research position. Strong medical science background. Four years diversified teaching experience. Research experience in enzymes, trace metals and histochemistry. Age 33, family, veteran. Sigma Xi, publications. East preferred. Address: A-59.

• An all academic position desired in PREVENTIVE MEDICINE and PUBLIC HEALTH with opportunities of field study and promotions. M.D. Age 40. Married. Eleven years professional experience. Affiliations. Publications. Address: A-60.



FACULTY APPOINTMENTS OPEN: (a) Chairman of department and Professor of radiology; important university medical school; \$12,000; also may engage in private consultation. (b) Professor and Chairman, department, Neuropsychiatry, university medical school and its 400 bed graduate hospital. (c) Associate Professor, Psychiatry; university medical school; \$10,000 plus private consultation; large city. (d) Professor and Chairman, department, Pediatrics; might also be appointed Ped-in-Chief, large affiliated children's hospital; large city. (e) Asst Prof; new post; univ. medical school & its 600 bed graduate hospital; large city.

FACULTY APPOINTMENTS WANTED: **INTERNIST**—M.S., Medicine; Diplomate, Am. Bd. Internal Medicine; FACP; ASTM; decided interest in academic medicine; past 8 years. Assoc. Prof. medicine and director, important lung service, large teaching hosp.

PATHOLOGIST—32; B.S., M.S., Ph.D., M.D. same leading medical school; Diplomate, pathological anatomy; Bd. eligible, clinical pathology; 7 years, pre-med training and instructor, large laboratory; 2 years, pathologist, important cancer institute; interested academic path. and research.

PSYCHIATRIST: M.S., Psychiatry; Diplomate, Am. Bd. Neuropsychiatry; decided interest in academic psychiatry; past 5 years, coordinator, important psychiatric therapy center.

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